

Station

Guernville Branch-Re-Survey
1907-1908

F. W. Egelston

- 5 E -

LEVEL BOOK

14.113.0020

EUGENE DIETZGEN CO.,

Drawing Materials and Surveying Instruments.

NEW YORK.

CHICAGO.

SAN FRANCISCO.

TABLES FOR EXCAVATIONS AND EMBANKMENTS.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 20 FEET WIDE. SIDE SLOPES 1 TO 1.

FOR SINGLE TRACK EXCAVATION.

"Copyright, 1902, by Eugene Dietzgen Co."

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	0
1	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	1
2	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	2
3	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	3
4	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	4
5	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	5
6	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	6
7	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	7
8	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	8
9	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	9
10	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	10
11	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	11
12	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	12
13	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	13
14	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	14
15	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	15
16	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	16
17	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	17
18	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	18
19	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	19
20	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	20
21	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	21
22	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	22
23	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	23
24	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	24
25	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	25
26	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	26
27	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	27
28	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	28
29	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	29
30	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	30
31	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	31
32	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	32
33	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	33
34	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	34
35	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	35
36	46.0	46.1	46.2	46.3	46.4	46.5	46.6	46.7	46.8	46.9	36
37	47.0	47.1	47.2	47.3	47.4	47.5	47.6	47.7	47.8	47.9	37
38	48.0	48.1	48.2	48.3	48.4	48.5	48.6	48.7	48.8	48.9	38
39	49.0	49.1	49.2	49.3	49.4	49.5	49.6	49.7	49.8	49.9	39
40	50.0	50.1	50.2	50.3	50.4	50.5	50.6	50.7	50.8	50.9	40

Calculated by F. E. Paradis, C. E.

Fulton Guerneville Branch

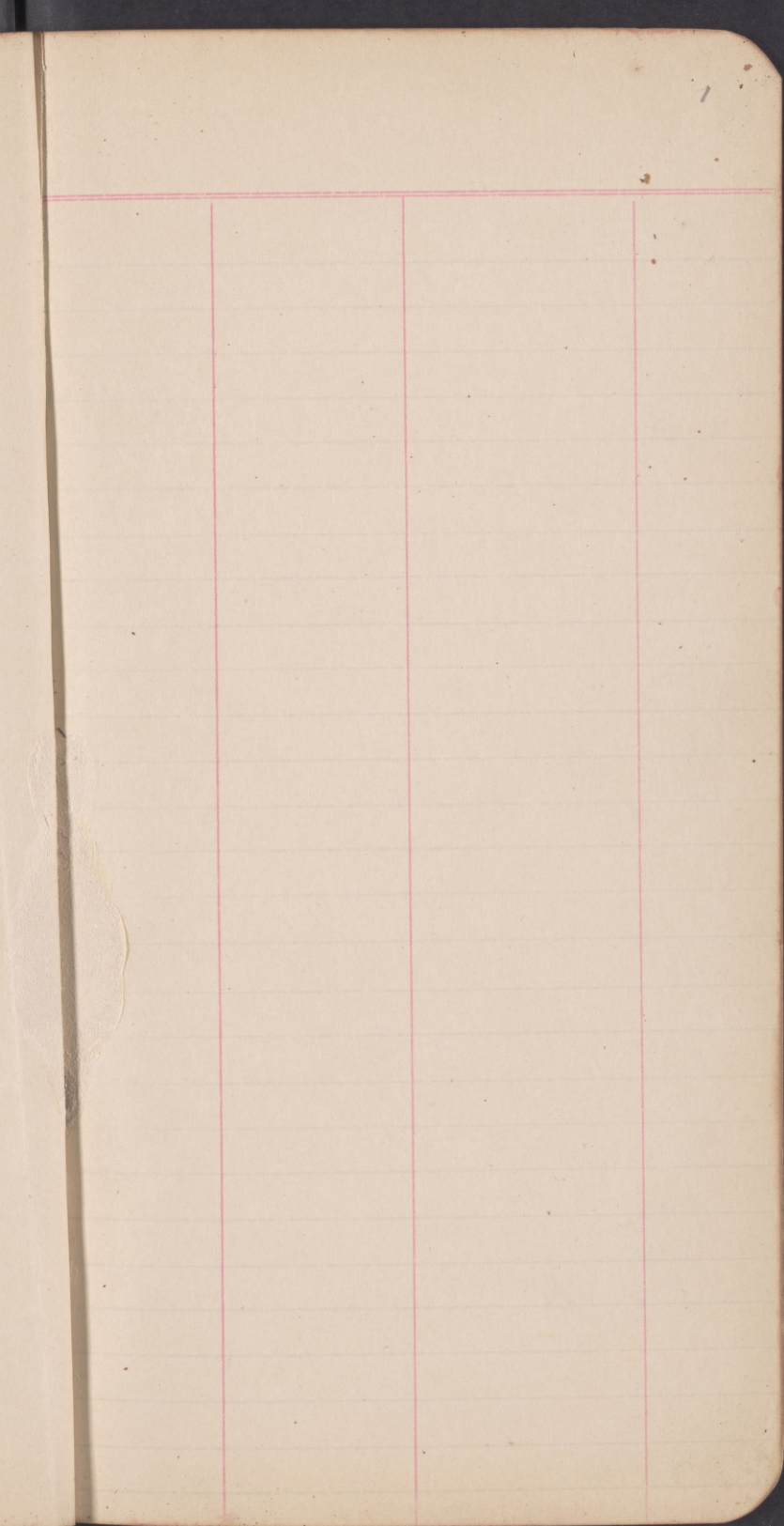
Re-survey of Constructed Line

Dec 1907

F. W. Engelston Asst. Eng.

F. C. Schafer Level.

C. E. Widlund Rod.



INDEX

Line	Sta Begins	Sta Ends	Pages
"L"	0+00	383+00	3- 66
"L"	195+67±	207+06±	71
Russian River Bridge near Hilton			70

[illegible]

"L"

FCSchaffer Level
C.E. Widlund Rod

Wednesday Dec. 11 - 0

Standard Bench Mark Ground

528 136 ²⁸

4.33

0. + 0.0
+ 0.2 ± HB L
+ 0.5 ± PF

6.1 130.0 - 4.6

1. + 1.76 PF
+ 1.80 ± HB

5.6 130.5 - 4.9

2

5.3 130.8 - 5.1

3

5.8 130.3 - 5.4

4. + 2.72 HB

6.6 129.5 - 5.8

5. + 0.5 PF
+ 0.5 ± HB

6.7 129.4 - 6.3

6. + 1.76 PF

6.7 129.4 - 6.6

7. + 1.76 PF
+ 1.80 ± HB ¹⁰

7.6 128.5 - 6.7

6 ⁸²

133 ³⁶

8. + 4.1 HB

5.8 127.6 - 4.4

9. + 0.46 PF

7.1 126.3 - 4.7

10

6.0 127.4 - 4.8

11. + 7.0

7.4 126.0 - 4.9

+ 8.0

4.9

+ 9.0

+ 10.0

12

7.2 126.2 - 5.0

13

8.0 125.4 - 5.4

14

8.2 125.2 - 5.7

2 ⁸⁷

5 ⁷⁰

130 ⁵³

15

4.5 126.0 - 3.1

16

4.5 126.0 - 3.5

17

5.3 125.2 - 3.8

18

5.2 125.3 - 4.0

19

5.7 124.8 - 4.2

12.05

12.52

Base Rail

131.00

= Base of Rail Main Line opp. Office Door
1 of Fulton Depot

131.75

BM #1 RR spike in tel. pole at E. end of
00+02.4 HB turnout Mainline / FULTON DEPOT
00+85.0 RF

131.5

131.2

131.0

130.7

130.3

129.8

129.5

129.4

129.36

129.0

128.7

128.6

128.5

128.5

128.44

PIT Cattle Guard Begins
" " Ends.

128.0

127.7

127.66

T.P.

Revised - 1916

Elev B.M. by J.E.W. Book 71
" " F.W.E
diff

127.4

127.0

126.7

126.5

126.3

-12.52

+12.05

- .47

131.00

130.53

.47

134.315

131.75

2.565

Note

This elevation on
Revaluation Profile is
about 132.50 allowing
1 ft for ballast
on Revaluation Profile
of Gurneeville Branch
deduct 19 ft
from Base
to Subgrade

"1"

				Ground	
	130 <u>53</u>				
20			5.0	125.5	4.5
21			7.1	123.4	4.9
+25 = Box C					
+58					8.7
22			7.1	123.4	5.5
	1 <u>81</u>	5 <u>44</u>			
	126 <u>90</u>				
23			3.5	123.4	2.3
24			3.7	123.2	2.9
25			4.5	122.4	3.3
26			6.5	120.4	3.8
27			5.4	121.5	4.2
28			6.8	120.1	4.3
29 + 00 } CG			6.5	120.4	4.8
+08	2 <u>64</u>	5 <u>82</u>			
	123 <u>72</u>				
+30					1.9
30			3.8	119.9	2.2
-1892					
31			4.9	118.8	3.1
32			5.3	118.4	3.4
33			5.0	118.7	3.9
34			6.1	117.6	4.3
35			6.1	117.6	4.9
36			6.7	117.0	5.4
37			6.7	117.0	6.1
38			7.2	116.5	6.6
	2 <u>14</u>	6 <u>53</u>			
6.5	119 <u>33</u>	17.79			

Base Rail

126.0 (125)

125.6

121.8 Box Culv. 12" x 24" x 25'

125.0

125 ⁰⁹ T.P.

124.6

124.0

123.6

123.1

122.7

122.6 Pit Cattle Guard. B

E.

122.1

121 ⁰⁸

#2

B.M. spike in butt of oak 25' Rt L²⁹+10

121.8

Road Crossing Public

121.5

Pit Cattle Guard.

120.6

120.3

119.8

119.4

118.8

118.3

0

117.6

117.1

117 ¹⁹

T.P.

$$\begin{array}{r}
 -17.79 \\
 + 6.59 \\
 -11.20
 \end{array}$$

$$\begin{array}{r}
 130.53 \\
 119.33 \\
 11.20
 \end{array}$$

" L "

119 33

39	3.8	115.5✓	2.7
40	4.0	115.3✓	3.3
41	6.2	113.1✓	3.7
42	6.0	113.3✓	4.1
43	6.1	113.2✓	4.5
44	8.2	111.1✓	5.0
45	8.1	111.2✓	5.5

201

5 55

115 79

46	4.6	111.2✓	2.5
47	5.9	109.9✓	3.0
48	6.6	109.2✓	3.4
49	5.5	110.3✓	3.9
50	6.3	109.5✓	4.4
51	6.7	109.1✓	4.9

2 63

4 92

113 50

52	5.0	108.5✓	3.1
53	5.6	107.9✓	3.6
54	7.3	106.2✓	3.8
55			3.9
56	6.8	106.7✓	4.0
57	7.0	106.5✓	4.2
	8.0	105.5✓	4.7

2 86

4 68

111 68

7.5

15.15

116.6✓

116.0✓

115.6✓

115.2✓

114.8✓

114.3✓

113.8✓

113 78

T.P.

113.3✓

112.8✓

112.4✓

111.9✓

111.4 - (1104)

110.9✓

110 87

T.P.

110.4✓

109.9✓ + 75 Public Road.

109.7✓

109.6✓

St. Cathie Guard B.

109.5✓

Bt " " B.

109.3✓

108.8✓

108 82

T.P.

$$\begin{array}{r}
 -15.15 \\
 + 7.50 \\
 \hline
 7.65
 \end{array}$$

$$\begin{array}{r}
 119.33 \\
 111.68 \\
 \hline
 7.65
 \end{array}$$

"L"

111 68

58	6.4	105.3 [✓]	3.4
59	6.9	104.8 [✓]	4.0
60	7.0	104.7 [✓]	4.6
61	6.8	104.9 [✓]	5.2
62	7.6	104.1 [✓]	5.9
63	8.0	103.7 [✓]	6.4

3 26

7 48

107 46

64	4.3	103.2 [✓]	2.7
65	4.7	102.8 [✓]	3.3
66	5.2	102.3 [✓]	3.7
67	6.4	101.1 [✓]	4.0
68	7.0	100.5 [✓]	4.8
69	8.1	99.4 [✓]	5.4

2 10

5 28

104 28

70	5.0	99.3 [✓]	2.7
71	5.5	98.8 [✓]	3.3
72	4.6	99.7 [✓]	3.6
73	4.8	99.5 [✓]	4.1
74	4.0	100.3 [✓]	4.8
75	4.9	99.4 [✓]	5.3

3 15

5 18

102 25

76	2.5	99.8 [✓]	3.5
----	-----	-------------------	-----

8.51

17.94

108.3^v107.7^v107.1^v (106^L)106.5^v105.8^v105.3^v104 ²⁹

#3

B.M. nail in hub 25' to L + "L" 63+00

104.8^v104.2^v103.8^v103.5^v

+88 Pt Cattle Guard B.

+92 Fence R. side,

102.7^v

+96 Cattle Guard E.

+97 Fence L. side.

102.1^v102 ¹⁸

T.P.

101.6^v (100^L)101.0^v100.7^v100.1^v

Road Crossing Private

100.2^v99.5^v99.0^v99 ¹⁰

T.P.

98.8^v

$$\begin{array}{r} -17.94 \\ + 8.51 \\ \hline 9.43 \end{array}$$

$$\begin{array}{r} 111.68 \\ 102.25 \\ \hline 9.43 \end{array}$$

"L"

102 25

77		19	100.4 [✓]	4.0
78		27	99.6 [✓]	4.4
79		29	99.4 [✓]	4.8
80		4.4	97.9 [✓]	5.3
81		4.1	98.2 [✓]	5.8
+44Z } 06 527 } 253				

5 75

99 23

+63

82		1.7	97.3 [✓]	3.1
83		3.2	95.8 [✓]	3.6
84		4.5	94.5 [✓]	4.2
85		4.4	94.6 [✓]	4.7
86		5.8	93.2 [✓]	5.2
87		6.1	92.9 [✓]	5.7

0 56

4 35

95 24

88		2.7	92.5 [✓]	2.5
89		3.7	91.5 [✓]	3.0
90		5.2	90.0 [✓]	3.4
91		5.9	89.3 [✓]	3.9
92		6.6	88.6 [✓]	4.3
93		6.8	88.4 [✓]	4.8
94		7.5	87.7 [✓]	5.3

1 75

5 27

91 72

95

4.3 87.4[✓] 2.2

484

15.37

98.3 ✓

97.9 ✓

97.5 ✓

97.0 ✓ (96°)

96.5 ✓ pt cattle Guard R. E. Fence L side + 52'

96.50 T.P.

96.1 ✓ Private Road. Box Culv. 8' x 12' x 16'

95.9 ✓

95.4 ✓

94.8 ✓

94.3 ✓

93.8 ✓

93.3 ✓

94.68 ^{##} B.M. spike in butt of oak 25' ^{11"} L' 87 + 80

92.7 ✓

92.2 ✓

91.8 ✓

91.3 ✓

90.9 ✓

90.4 ✓

89.9 ✓

89.97 T.P.

89.5 ✓

$$\begin{array}{r}
 -15.37 \\
 +4.84 \\
 \hline
 -10.53
 \end{array}$$

$$\begin{array}{r}
 102.25 \\
 71.72 \\
 \hline
 10.53
 \end{array}$$

"L"

+083

91 72

96		5.0	86.7 ⁻	2.8
97		5.4	86.3 ⁻	3.3
98		5.2	86.5 ⁻	3.7
99		5.4	86.3 ⁻	4.1
100		7.3	84.4 ⁻	4.6

1 60

4 56

88 76

+90

101		7.2	81.6 ⁻	
102		7.4	81.4 ⁻	2.0
103		3.8	85.0 ⁻	2.4
104		5.4	83.4 ⁻	2.8
105		5.6	83.2 ⁻	3.1
106		5.7	83.1 ⁻	3.1
107		5.9	82.9 ⁻	3.1

+157
+243

3 49

3 12

89 13

+35

+50
+59245 MB
+483 PA

108		5.6	83.5 ⁻	3.5
		5.7	83.4 ⁻	3.4

4 24

3 13

90 24

109		7.3	82.9 ⁻	4.5
110		9.4	80.8 ⁻	4.8
111		9.4	80.8 ⁻	4.6

+38

112		9.1	81.1 ⁻	
		8.7	81.5 ⁻	4.7

7.25

10.81

Fence Both sides

88.9 ✓

88.4 ✓

88.0 ✓

87.6 ✓

87.1 ✓

87 ¹⁶

T.P.

N.W.

86.8 ✓

N.W.

Trestle baq¹⁰ 100+72^E

86.4 ✓

Bulkhead Pile Trestle

#3

86.0 - (85°)

Trestle end L 101+04^E

L-7x16 Stringers O.P.

Caps 12x12x16 R.W.

85.7 ✓

85.7 ✓

85.7 ✓

P.A. Cattle Guard B.

85 ⁶⁴

T.P.

E.

85.7 ✓

Road Crossing Private.

P.A. Cattle Guard B.

85.6 ✓

106+84^E H.A. Meacham siding L.

85.7 ✓

107+48^E R.A.

#5

86 ⁰⁰

B.M. RR spike in sign post 20 L + L 106+70

85.7 ✓

85.4 ✓

85.6 ✓

111+28² to 111+41.7 Low Trestle.

Width 8.0'

Length 13.5'

Height 4.5'

91.72 4-7x16 Stringers O.P.

90.24 1.48 Caps 12x12x12 R.W.

85.5 ✓

-10.81

+ 9.33

1.48

#4

"L"

90 24

113 PF
160%
114
+243 HB
115

2 55

4 77

88 02

116

117

118

119 } CG
+413
+492
+56
+652 } CG
120 }
+272

121

4 38

3 13

89 27

122

123

+77

124

125

+62

126

127

+55

128

5 21

1 74

92 74

129

1214

8.5

8.6

7.2

5.0

6.6

7.0

7.1

6.0

8.5

8.6

8.3

8.0

9.2

5.6

2.8

4.0

7.5

81.7 ✓

81.6 ✓

83.0 ✓

83.0 ✓

81.4 ✓

81.0 ✓

80.9 ✓

82.0 ✓

79.5 ✓

80.7 ✓

81.0 ✓

81.3 ✓

80.1 ✓

83.7 ✓

86.5 ✓

85.3 ✓

85.2 ✓

4.8

4.8

4.8

2.3

3.0

3.1

3.1

3.1

3.1

3.2

4.3

3.9

10.0

3.6

3.2

2.7

2.1

6.9

1.8

4.8

85.4⁻ 113+60⁵PF } Meacham siding 13'L
 14424²HB } 741' HB $\pm$ HB

85.4⁻

85.4⁻

85 47 T.P.

85.7⁻

85.0⁻

84.9⁻

84.9⁻

pt Cattle Guard B

84.9⁻

+50 Road Crossing Private

84.9⁻

pt Cattle Guard B

" " E.

84.8⁻

84 89

T.P.

85.0⁻

85.4⁻

79.3⁻ +7730"X36"X25 Box Culv.

85.7⁻

86.1⁻ +62 Fence L. Side

86.6⁻

87.2⁻

82.4⁻ +55 Box Culv 12"X18"X30'

87.5⁻

87 53

T.P.

87.9⁻

+12.14

92.74

- 9.64

90.24

+2.50

92.50

"L"

+472					
	92 ⁷⁴				
130			8.0	84.7✓	4.6
+480					10.5
131			8.4	84.3✓	4.0
132			7.1	85.6✓	3.5
+50					
133			2.1	90.6✓	3.3
134					3.3
	12 ⁶¹	0 ¹⁸			
	105 ¹⁷				
134			8.1	97.1✓	
	10 ⁶⁵	0 ³²			
	115 ⁵⁰				
135			6.8	108.7✓	
+60			2.4	113.1✓	
136			2.3	113.2✓	
137			7.8	107.7✓	
138			13.2	102.3✓	
	0 ²⁷	12 ⁶⁷			
	103 ¹⁰				
139			4.5	98.6✓	
140			8.5	94.6✓	
	0 ⁶⁴	12 ⁸¹			
	90 ⁹³				
135					2.0
136					2.5
137					3.0
14.17		25.98			

129 + 472 Fence Both sides

88.1 -

82.2 - + 45 Box Culv 12' x 24' x 37'

88.7 -

89.2 -

~~132~~ 132 + 50 Road Private Only both sides 12' x 18' x 16'

89.4 -

89.4 - (88.4)

92 56 T.P.

104 85 T.P.

102 83 T.P.

90 29 T.P.

88.9 -

88.4 -

87.9 -

- 25.98

+ 24.17

1.81

92.74

90.93

1.81

"L"

FC Schafer Level
CE Wieland Rod

Thursday Dec 12-07

90 93

138 3.6

139 4.1

140 4.5

141 2.9 88.0 4.8

0 93

0 64

+45 91 22

142 9.0 82.20 5.8

143 17.3 73.9 6.2

+56 22.0 69.2

+70 22.1 69.1

144 17.9 73.3 6.9

2 94

6 67

87 49

145 5.8 81.7 3.9

146 6.1 81.4 4.5

147 8.0 79.5 5.0

148 9.6 77.9 5.4

149 15.5 72.0 5.8

+18 17.0 70.5

150 13.2 74.3 6.2

4 13

6 08

85 54

151 6.6 78.9 4.5

152 2.0 83.5 4.7

+60.3 5.8 79.7 5.2

+66.3 7.8 77.7 5.5

+67.8 8.00 13.39

+67.8 8.00 13.39

87.3 ✓

86.8 ✓

86.4 ✓

86.1 ✓

90 ³⁹ End 12-11-07

+45 Private Road

85.4 ✓

85.0 ✓

M.W. 143+37 ² 143+88 ⁵ Trestle No. 5
 Not Surf by Tape Width 8' 2"
 Length 462' Height 15.5' Width of W.W. 14' 2'

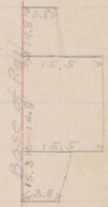
M.W. Trestle begins "L" 143+37 ²

84.3 ✓

84 ⁵⁵

T.P.

Bulhead Frame
 Trestle # 5



83.6 ✓

Trestle ends "L" 143+83 ²

6-7' x 12" stringers O.P.
 caps 12' x 12' x 12' R.W.

83.0 ✓

82.5 ✓

82.1 ✓

81.7 ✓

Box Culv 12' x 30' x 8' 4"

81.3 ✓

81 ⁴¹

T.P.

81.0 ✓

80.8 ✓

At cattle Guard, R

80.3 ✓

153+50 12' x 12' x 30' Box Culv El. 76.8

80.0 ✓

H.B. 301 olive siding L.

"L"

+222					
	85 <u>54</u>				
+42 +572					5.6.
155		1.6	83.9 [✓]		5.8
156		3.3	82.2 [✓]		6.2
	1 <u>35</u>	4 <u>40</u>			
	82 <u>49</u>				
157		3.7	78.8 [✓]		3.5
158		4.8.	77.7 [✓]		3.8
159 +513 PF		7.7	74.8 [✓]		4.4
160 +143148		9.3	73.2 [✓]		4.8
+35		7.5	75.0 [✓]		
161		9.2	73.3 [✓]		5.0
162		10.7	71.8 [✓]		5.3
	4 <u>27</u>	5 <u>17</u>			
	81 <u>59</u>				
163 +061 +141		7.5	74.1 [✓]		4.6
164		7.1	74.5 [✓]		4.8
165		6.1	75.5 [✓]		4.8
166		6.0	75.6 [✓]		5.0
167		3.5	78.1 [✓]		5.2
168		3.0	78.6 [✓]		5.4
	4 <u>13</u>	5 <u>40</u>			
	80 <u>32</u>				
169		5.7	74.6 [✓]		4.8
170 +5315 +90		6.3	74.0 [✓]		5.2
+938					5.6
171		5.1	75.2 [✓]		5.7
	9 <u>25</u>	14 <u>97</u>			

Fence R. side

79.9⁻Road Crossing Private
Fence R. side79.7⁻79.3⁻81 ¹⁴BM #6 RR spike in oak 20' Rt ¹⁴ 56+1979.0⁻78.7⁻78.1⁻77.7⁻P.F. } Olivet siding L.
H.B. }
Box Gully 12" x 24" x 30'77.5⁻77.2⁻77 ³²

T.P.

77.0⁻Pt Cattle Guard, B
" " " E.76.8⁻76.8⁻76.6⁻76.4⁻76.2⁻76 ¹⁹

T.P.

75.5⁻75.1⁻Cattle Guard, B
" " " E - Fence Both sides.
Public Road.
Pt Cattle Guard74.7⁻74.6⁻

"Z"

+01 ⁴					
+90	80	<u>32</u>			
172			11.3	69.0 ⁻	6.2
173			10.3	70.0 ⁻	6.2
174			9.1	71.2 ⁻	6.4
	27 ⁴		6	<u>33</u>	
	76	<u>23</u>			
175			3.9	72.8 ⁻	3.0
176			3.9	72.9 ⁻	3.1
177			5.2	71.5 ⁻	3.5
178			8.5	68.5 ⁻	4.8
179			10.2	66.5 ⁻	5.6
180			11.8	64.9 ⁻	5.6
	6	<u>13</u>	8	<u>61</u>	
	74	<u>25</u>			
+15			10.7	63.6 ⁻	
+20			15.6	58.7 ⁻	
181			8.1	66.2 ⁻	3.5
182			9.5	65.8 ⁻	3.8
183			9.2	65.1 ⁻	4.0
184			15.3	59.0 ⁻	4.2
+25			18.8	55.5 ⁻	
185			14.9	59.4 ⁻	4.5
			19.8	54.5	
+70			16.5	57.8 ⁻	
			19.8	54.5	
186			16.5	57.8 ⁻	4.8
			19.8	54.5	
+15			16.5	57.8 ⁻	
187			9.3	65.0 ⁻	5.2
	2	<u>56</u>			
	11.43	71	<u>57</u>		
			5	<u>14</u>	
			20.18		

Cattle Guard E.

Box Culv. 12" x 24' x 34'

74.1 ✓

74.1 ✓

73.9 ✓

73.99

T.P.

73.7 ✓

73.6 ✓

72.9 ✓

71.9 ✓

71.1 ✓ (70 L)

71.1 ✓

68.12

6' L + 180 + 00

B.M. #4 R.R. spike in pile back wall of trestle No. 6

Bulkhead Pile Trestle 179 + 99.2 to 180 + 76.2 Trestle #6

Trestle begins "L" 179 + 99.2

N.W.

70.8 ✓

70.5 ✓

70.3 ✓

70.1 ✓

Trestle ends "L" 180 + 76.2

N.W.

69.5 ✓

69.5 ✓

W.W.

Mark West Creek

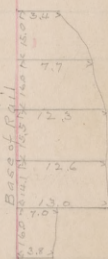
H.W. 186 + 00. El. 68.1 Drift.

69.1 ✓ (68.1)

69.01

T.P.

$$\begin{array}{r}
 + 20.18 \\
 - 11.43 \\
 \hline
 8.75
 \end{array}$$

$$\begin{array}{r}
 80.32 \\
 71.57 \\
 \hline
 8.75
 \end{array}$$


"L"

71 57

+70	0.1	71.5 ^v	
188	add 1.0	72.6 ^v	2.7
189	7.3	64.3 ^v	3.3
190	10.1	61.5 ^v	4.0
191	6.0	65.6 ^v	4.0
+2.04 +3.18 +5.50 +6.88 +7.68			4.0
192	4.7	66.9 ^v	4.0
+15	5.0	66.6 ^v	
193	1.0	70.6 ^v	4.3

4 09

4 31

71 35

194	0.4	71.0 ^v	4.6
195	2.3	69.1 ^v	5.2
196	4.4	67.0 ^v	5.8
197	4.6	66.8 ^v	6.0
+69 +85 +95	7.8	63.6 ^v	
198	6.1	65.3 ^v	5.8
+32 +54 +64			5.9
199	4.4	67.0 ^v	6.0
200	4.2	64.2 ^v	6.6

3 02

6 48

67 89

+50			5.0
201	1.5	66.4 ^v	3.6
202	4.4	63.5 ^v	3.6
203	4.5	63.4 ^v	3.6

3.11

10.77

Changed Section 28

trestle begins "L" 183+17.4

68.9-

68.3-

67.6-

67.6-

Pat. C. G. B.

C. G. E.

67.6-

Road Crossing Private

67.6-

Pat. C. G. B.

C. G. E.

Box Culv 6'x8'x10'. Bulkhead
Frame Trestle
#7

67.3-

67.26

T.P.

6-7'x16" stringers C.P.
Caps 5 1/2"x12"x14" R.W.
5 posts to bent.
12 6 bents on piles

66.8-

Elevs of "L" off
constd line
page 71 - this book.

66.2-

65.6-

65.4-

Trestle ends "L" 186+21.8

Pipe drain 10' diam 20' Long
Fence P side

65.6-

Pat. C. G. B.
C. G. E.

65.5-

Road Crossing Private

65.4-

Pat. C. G. B.
C. G. E.

Note - Geological B.M. 3' Pipe Brass cap El 70.00, 20' to
Rt "L" 198+00. Elev by our levels 72.26

64.8-

64.87

T.P.

62.9-

Box Culv 12'x18'x12'

64.3-

64.3-

64.3-

- 10.79 71.57
+ 7.11 67.86
3.68 3.68

"L"

67 89

204

8.2 59.7-

4.1

205

9.0 58.9-

4.4

206

7.4 60.5-

4.7

1 83

4 62

65 10

207

7.0 58.1-

2.3

208

8.5 56.6-

3.0

209

10.0 55.1-

3.2

210

11.7 53.4-

3.5

211

12.1 53.0-

3.5

212

11.9 53.2-

3.6

6 22

5 29

66 03

213

12.8 53.2-

4.5

+52

214

12.6 53.4-

4.5

215

13.3 52.7-

4.5

+53

216

14.7 51.3-

4.5

217

14.4 51.6-

4.4

218

15.6 50.4-

4.4

3 15

4 33

64 85

219

14.2 50.7-

3.1

220

16.3 48.6-

3.1

221

20.8 44.1-

3.0

H.W.

+1.0 65.9-

+46

22.3 42.6-

11.20

14.24

"L"

See Page 18

64 ⁸⁵

+50

12.5 52.4-

222

10.8 54.1-

3.0

223

6.1 58.8-

3.3

224

3.9 61.0-

3.3,

225

1.9 63.0-

3.1

4⁵⁸

3⁰⁴

66 ³⁹

226

2.2 64.2-

4.2

+65

6.1 60.3-

227

1.5 64.9-

4.3

228

1.3 65.1-

4.4

+15

6.1 60.3-

229

1.5 64.9-

4.3

230

0.3 66.1-

4.6

231

1.7 64.7-

4.9

3⁴⁹

4²¹

65 ¹⁷

232

4.5 60.7-

3.9

233

7.2 58.0-

4.2

+45

10.4 54.8-

234

8.8 56.4-

4.4

235

8.4 56.5-

4.4

+30

8.8 56.4-

236

8.3 56.9-

4.6

237

4.6 60.6-

4.6

3⁶³

4³⁸

11.70

64 ⁴²

12.13

61.9-

61.6-

61.6-

61.8-

61 81

T.P.

62.2-

Pipe drain 10' diam 20' Long

62.1-

62.0-

Pipe drain 10' diam 20' Long

62.1-

61.8-

61.5-

61 68

T.P.

61.3-

61.0-

Box CULV 24' x 24' x 40'

60.8-

60.8-

Box CULV 40' x 12' x 40'

60.6-

60.6-

60 79

T.P.

- 12.13	64.85
+ 11.76	64.42
43	43

"L"

See Page 18

	64 <u>42</u>				
235			7.4	57.0 ⁻	3.9
239			4.0	60.0 ⁻	3.8
240			6.1	58.3 ⁻	3.8
+10			8.1	56.3 ⁻	
241			5.0	59.4 ⁻	3.7
	4 <u>00</u>	3 <u>61</u>			
	64 <u>81</u>				
242			5.0	59.8 ⁻	3.6
243			1.4	63.4 ⁻	3.3
244			4.9	59.9 ⁻	3.4
245			8.4	56.4 ⁻	3.4
+55			4.7	60.1 ⁻	
246			1.3	63.5 ⁻	2.9
247			1.0	63.8 ⁻	2.8
+01			4.2	60.6 ⁻	
		2 <u>91</u>			

60.5-

60.6-

60.6-

Box CN 14 12" x 24" x 30"

60.7-

60 ⁸¹

BM *9 nail in butt of oak 20' L + 241 + 70

61.2-

61.5-

61.4-

61.4-

Pipe Drain 10' Diam 20' long

61.9-

62.0-

Pipe Drain 10' Diam 10' long

61.90

T.A.

12-12-07

"L"

J. C. Schaefer Level.
E. E. Midland Road
Saturday, Dec 21-07

T.P.	3 ⁷²				
	65	<u>73</u>			
222			12.4	53.3 ⁻	3.9
223			7.8	57.9 ⁻	4.3
224			5.1	60.6 ⁻	4.1
225			2.0	63.7 ⁻	4.1
226			1.8	63.9 ⁻	4.2
157 ¹	3 ⁷⁶	3 ^{<u>66</u>}			
	65	<u>83</u>			
227			1.4	64.4 ⁻	4.0
228			1.1	64.7 ⁻	4.0
201			5.5	60.3 ⁻	
229			1.0	64.8 ⁻	3.9
230			0.1	65.7 ⁻	4.0
231			1.5	64.3 ⁻	4.3
232			3.5	62.0 ⁻	4.5
	3 ⁸⁸	4 ^{<u>41</u>}			
	64	<u>50</u>			
233			6.4	58.1 ⁻	3.6
150			9.7	54.8 ⁻	
234			9.0	55.5 ⁻	3.7
235			7.7	56.8 ⁻	3.7
122			8.1	56.4 ⁻	
236			7.2	57.3 ⁻	3.8
237			4.2	60.3 ⁻	3.8
238			7.4	57.1 ⁻	4.0
	4 ^{<u>36</u>}	3 ^{<u>80</u>}			
151.2	65	<u>06</u>	11.87		

61 81

T.P. See page 16 This Book.

61.8-

61.4-

61.6-

H.W. AT Sta 224 Drift in Large Tree
Elev 66.4

61.6-

Line here could track.

61.5-

226+58 Pipe drain 1'diam 20' long Elev 60.3

(bottom
upper side)62 07

T.P.

61.8-

61.8-

Pipe drain 1'diam 20' long

61.9-

61.8-

61.5-

61.3-

61 42

T.P.

60.9-

Box Culv 20"x24"x40'

60.8-

60.8-

AT Sta. 235
H.W. Drift in Large Tree Elev 64.1

Box Culv 18"x48"x40'

60.7-

60.7-

60.5-

60 70

T.P.

$$\begin{array}{r}
 +15.12 \\
 -11.87 \\
 +3.25
 \end{array}$$

$$\begin{array}{r}
 65.06 \\
 61.81 \\
 3.25
 \end{array}$$

Σ

65⁰⁶

239		5.0	60.1"	4.4
240		6.7	58.4"	4.4
+01		8.7	56.4"	
241		4.9	60.2"	4.3
BM				4.22
242		3.9	61.2"	3.7
243		2.6	62.5"	3.5
244		4.8	60.3"	3.7

5¹⁰

3⁵⁶

66⁶⁰

245		9.5	57.1"	5.2
148		6.5	60.1"	
246		1.5	65.1"	4.6
+95		6.0	60.6"	
247		3.9	62.7"	4.6
248		1.0	65.6"	4.4
249		4.9	61.7"	4.8
+85		8.6	58.0"	
250		7.1	59.5"	4.8

3¹⁷

4⁹⁵

64⁸²

251		1.4	63.4"	2.6
252		0.5	64.3"	2.7
+89				
253		3.5	61.3"	2.9
254		8.4	56.4"	3.2
+49				
255		8.5	56.3"	3.1

8.27

8.51

60.7[✓]60.7[✓]

Box Culv. 18" x 30" x 26'

60.8[✓]60.84[✓]B.M. ^{#9} on oak. El. 60 ⁸¹61.4[✓]61.6[✓]61.4[✓]61 50

T.P.

61.4[✓]

Pipe drain 1' diam 20' long

62.0[✓]

Pipe drain 1' diam 10' long

62.0[✓]62.2[✓]61.8[✓]

Box Culv 12" x 40" x 25'

61.8[✓]61 65

T.P.

62.2[✓]62.1[✓]

Fence P. side

61.9[✓]

H.W. opp 253 Tie in Large Tree Elev 62.8

61.6[✓]

Box Culv 12" x 30" x 32'

61.7[✓]

"Z"

+27					
	64 <u>82</u>				
256			4.0	60.8 ⁻	3.1
	3 ⁰⁸	3 ⁰⁷			
	64 <u>83</u>				
257			3.9	60.9 ⁻	3.1
258			6.3	58.5 ⁻	3.2
+72			8.9	55.9 ⁻	
259			5.2	59.6 ⁻	3.2
260			4.2	60.6 ⁻	3.2
261			4.1	60.7 ⁻	3.2
262			2.8	62.0 ⁻	3.1
	12 ³⁷	5 ¹¹			
	72 <u>09</u>				
263			4.8	67.3 ⁻	9.9
	11 ¹⁸	0 ¹⁰			
	83 <u>17</u>				
+75			8.8	74.4 ⁻	
+85			4.8	78.4 ⁻	
264			1.3	81.9 ⁻	
	3 ¹⁴	0 ²³			
	86 <u>08</u>				
+50			1.8	84.3 ⁻	
265			6.0	80.1 ⁻	
+50			10.4	75.7 ⁻	
+70			19.7	66.4 ⁻	
266			12.2	73.9 ⁻	
267			13.1	73.0 ⁻	
	19.77	8.51			

Fence L. side

61.7^v61 75

T.P.

61.7^v61.6^v

Box CULV 18" x 18" x 35'

61.6^v61.6^v61.6^v61.7^v59 72

B.M. #10 nail in hub 25' R + of 262 + 25' L

62.2^v71 99

T.P.

82 94

T.P.

$$\begin{array}{r}
 + 29.77 \\
 - 8.51 \\
 \hline
 21.26
 \end{array}$$

$$\begin{array}{r}
 86.08 \\
 64.82 \\
 \hline
 21.26
 \end{array}$$

"L"

86 08

121

1279

74 30

264

11.3

265

11.1

266

11.0

267

11.5

482

+96

13.5 60.8

11.5

268

8.5 65.8 12.0

269

6.9 67.4 12.4

270

4.9 69.4 12.4

271

4.1 70.2 12.8

194

123

1251

63 02

272

7.2 55.8 2.0

273

13.4 49.6 2.6

274

14.7 48.3 2.6

275

15.5 47.5 2.4

276

16.7 46.3 2.4

277

17.0 46.0 2.5

525

289

65 88

278

9.6 56.3 5.7

279

8.5 57.4 5.1

280

11.5 54.4 4.5

+85

14.0 51.9

281

12.7 53.2 4.2

749

27.9

73 ²⁹

T.P.

63.0-

63.2-

63.3-

62.8-

Cut drain Iron Pipe 12" dia x 40' Long R side
Box Culv 12' x 12' x 12'

62.3-

61.9-

61.9- (609)

61.5-

Mile Post 62

61 ⁷⁹

T.P.)

H.W. 271+50 Drift in Tree Elev 62.2

61.0-

60.4-

60.4-

60.6-

60.6-

60.5-

60 ⁶³

T.P.

H-7 X 16 Stringers G.P.
Cops 12' x 12' x 10' 10"

60.2-

60.8-

61.4-

Fence R side

Begins 280+76²

Bulkhead Trestle 47

Ends 280+90²Base of Rail
7.5
14.1
29.3

W.W.

$$\begin{array}{r} -27.69 \\ + 7.49 \\ \hline 20.20 \end{array}$$

$$\begin{array}{r} 86.08 \\ 65.88 \\ \hline 20.20 \end{array}$$

61.7-

"L"

65 88

282

6.1 59.8^v

3.8

+42
+73¹ AB.

3.7

283

0.7 65.2^v

3.9

+36¹ PF.

284

2.3 63.6^v

3.9

3 39

3 69

65 88

285

1.1 64.5^v

3.8

286

1.0 64.6^v

3.8

287

2.5 63.1^v

3.8

288

6.2 59.4^v

3.9

+05

7.6 58.0^v

289

2.6 63.0^v

3.9

+81⁶ PF.

290

2.3 63.3^v

4.0

+40⁵ HB

291

2.4 63.2^v

3.8

4 06

3 84

65 80

292

1.6 64.2^v

4.2

293

0.9 64.9^v

4.3

294

1.7 64.1^v

4.3

295

1.8 64.0^v

4.2

+01

5.5 60.3^v

4.3

+09

+30

+50¹

+10¹

296

7.1 58.7^v

4.5

3 96

4 34

65 42

297

9.2 56.2^v

4.8

1.41

11.87

62.1⁺62.2⁺

Private Road.

62.0⁺62.0⁺HB } TRENTON Siding R.
PF } 20' R + L 284 + 8562.1⁹B.M. #11 RR spike in post NE cor of freight platform.
TRENTONH.W. opp 284 Drift on hillside Elev 65⁹61.8⁺61.8⁺61.8⁺61.7⁺

N.W. Begins 287 + 955

4-7x16" CP Strips

61.7⁺

Trestle #10

Caps 12x12x14 R.

61.6⁺PF } Trenton Ends 289 + 072
HB } Siding R61.8⁺61.7⁺

T.P.

61.6⁺61.5⁺61.5⁺61.6⁺

Box Culv 6'x8'x16'

61.5⁺Fence L. Side
Public Road Begins "L" 299 + 45561.3⁺Fence both sides.
AT C&P
C&PBulk head
Pile Trestle #1161.4⁶

T.P.

Ends "L" 299 + 572

60.6⁺H.W. at 297 El. 64.6 Base of Appl track Near
TRENTON.4-7x16" CP stringers
Caps 12x12x14 R.

"L"

65 ⁴²

298		10.5	54.9 ^u	4.6
299		9.4	56.0 ^u	4.6
+53		11.6	53.8 ^u	
300		10.4	55.0 ^u	4.4
301		8.4	57.0 ^u	4.4
302		7.8	57.6 ^u	4.3

4 ⁹⁵

4 ⁴⁸

65 ⁸⁹

303		5.2	60.7 ^u	4.9
304		5.0	60.9 ^u	4.8
305		1.7	64.2 ^u	4.3
306		1.0	64.9 ^u	4.3
307		4.4	61.5 ^u	4.4
180				
308		10.4	55.5 ^u	4.6

6 ³⁵

6 ⁷²

65 ⁵²

+85		17.6	47.9 ^u	
309		13.6	51.9 ^u	4.1
310		13.8	51.7 ^u	4.1
311		12.6	52.9 ^u	4.1
+35		13.4	52.1 ^u	
312		10.4	55.1 ^u	4.1
313		9.5	56.0 ^u	4.2
314		0.2	65.3 ^u	4.0

3 ⁰²

3 ⁶⁷

64 ⁸⁷

14.32

14.37

Trestle bag 115' 308+339

60.8

60.8

N.W.

61.0

61.0

61.1

60 ⁹⁴

T.P.

Bulkhead Frame
Trestle #124-7x16" Stringers C.B.
Caps 12"x14"x14" R.W.3-12"x12" R.W. posts to
abut.2nd bench has been
braced to prevent
sinking -

61.0

61.1

61.6

61.6

Trestle ends 12' 311+45#

61.5

Fence side

61.3

H.W. 400' AT 310 Drift in Tree Elev 64.0

59 ¹⁷

B.M. #12 RR spike in cap Back Wall of Trestle 7' L 308+33

N.W.

61.4

61.4

61.4

N.W.

61.4

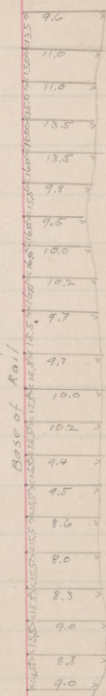
61.3

61.5

61 ⁸⁵

T.P.

$$\begin{array}{r} -14.87 \\ + 14.32 \\ \hline .55 \end{array}$$

$$\begin{array}{r} 65.42 \\ 64.87 \\ \hline .55 \end{array}$$


"L"

64 87

315

2.6 62.3" 3.1

316

5.1 59.8" 3.6

317
11/5

11.4 53.5" 3.8

318

8.6 56.3" 3.7

319

5.3 59.6" 3.1

320

0.5 64.4" 2.1

5 89

0 48

70 28

321

2.4 67.9" 7.3

4907
322

8.8 61.5" 7.5

+10

7.5

323
324

12.0 58.3" 8.1

324

14.6 55.4" 8.3

325

15.6 54.7" 8.6

3 37

8 49

65 16

326

11.3 53.9" 3.5

327

11.3 53.9" 3.7

328

11.1 54.1" 3.8

+65

11.5 53.7" 3.8

329

11.4 53.8" 3.7

330

7.9 57.3" 3.5

331

3.9 61.3" 3.1

3 40

2 93

65 63

+90

3.5

12.66

11.90

61.8✓

61.3✓

61.1✓

Box Culv. 12'x12'x50'

61.2✓

61.8✓

62.5✓

64 ³⁹

T.P.

63.0✓

C.G.B.
C.G.E.

62.8✓

62.8✓

Private Road.

62.2✓

C.G.B.
C.G.E. + 98. Fence Side
Fence

62.0✓

H.W. 1907 Elev 63.5 information by
Henry Costar

61.7✓

61.7✓

T.P.

61.7✓

Trestle begins 328+42.6

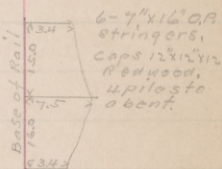
61.5✓

61.4✓

Bulkhead Pile
Trestle #13

W.W.

Trestle ends 328+74.2



61.5✓

61.7✓

62.1✓

62 ²³

T.P.

62.1✓

Private Road.

Box Culv. Fence Side
12'x24'x16'

76

"L"

65 63

332

3.7 61.9⁻ 3.5

333

0.3 65.3⁻ 3.5

+894

+90

5.2 60.4⁻

+972

334

0.5 65.1⁻ 3.5

+11

335

1.4 64.2⁻ 3.3

336

1.9 63.7⁻ 3.2

337

0.1 65.5⁻ 3.3

3 94

3 21

66 36

338

4.3 62.1⁻ 4.2

339

7.0 59.4⁻ 4.1

+63

6.7 59.7⁻

340

6.4 60.0⁻ 3.9

341

2.5 63.9⁻ 3.3

342

0.1 66.3⁻ 3.1

343

0.6 65.8⁻ 2.7

+292

3 39

2 68

+891

67 07

-46

344

3.6 63.5⁻ 3.4

345

7.9 59.2⁻ 3.5

346

10.5 56.6⁻ 3.5

+10

11.9 55.2⁻

347

10.4 56.7⁻ 3.5

348

6.5 60.6⁻ 3.4

349

6.1 61.0⁻ 3.2

6 92

5 72

14.25

68 21

11.61

62.1⁺62.1⁺

P.M. C.G.B.

W.W.

C.G.E.

62.1⁺

Fence L side

62.3⁺62.4⁺62.3⁺62 ⁴²

T.P.

62.2⁺62.3⁺

Box Culv 10" x 36" x 2'

62.5⁺63.1⁺63.3⁺63.7⁺

P.M. C.G.B.

63 ⁶⁸

T.P.

C.G.E. Fence R. side

Fence L side

63.7⁺63.6⁺63.6⁺

Box Culv 16" x 48" x 42'

63.6⁺63.7⁺63.9⁺61 ³⁵

+14.25

-11.61

+2.64

68.27

65.63

2.64

B.M. #13 nail in hub 30' alt of L" 349+00
12-21-07

"L"

J. E. Schaper Level
 E. E. Hurland Rd.
 Saturday Dec 28-07

68 ²⁷

350	8.7	59.6	4.3
351	8.0	60.3	4.1
352	5.6	62.7	3.8
353	3.2	65.1	3.4
⁷⁴² ⁷⁰¹³ + 68			3.2
⁷⁸² 354	2.0	66.3	3.4
355	1.0	67.3	3.4

7 ⁶²

0 ⁸²

75 ⁰⁷

356	2.5	42.8	10.1
357	5.9	69.2	10.0
358	6.8	68.3	9.9
+30	6.9	68.2	10.1
+60			10.3
359	10.1	65.0	10.4

+574 EC
 2 ⁹²

10 ²⁶

67 ⁷³

⁺⁸⁹⁶ 360	5.6	62.1	3.4
361	5.8	61.9	3.7
361	5.9	61.8	4.0
362	8.6	59.1	4.1
362	13.0	54.7	
363	10.6	57.1	4.3
⁷⁹⁹ 365	7.4	60.3	4.2

4 ⁷¹

4 ²³

68 ²¹

15.25

15.31

64.0^v64.2^v64.5^v64.9^v

C.G.B. } Pat. Guard.
 C.G.B. }
 Private Road.
 C.G.B. } Pat. Guard.

65.1^v64.9^v64.9^v67 ⁴⁵

T.P.

65.0^vH.W. Drift in Tree opp 359 Elev 62²65.1^v65.2^v65.0^v64.8^v

Private Road.

64.7^v (637)

Fence R side
 T.P.

64.8^v

Private Road.

64.3^v64.0^v63.7^v

Fence R side.

63.6^v63.4^v

Box cul in 18' 18" x 45'

63.5^v63 ⁵⁰

T.P.

-15.31
 +15.25
 .06

68.27
 68.21
 .06

"2"

68 21

366

4.0

64.2

4.7

367

5.2

63.0

4.7

+10
+47
368

4.8

63.4

4.4

+10
+128
369
+08

0.3

67.9

4.3

370

2.3

65.9

4.6

371

7.0

67.2

4.9

372
+138

5.8

62.4

4.9

5 40

4 87

68 74

373

2.0

66.7

5.5

374

0.1

68.6

5.6

375

1.5

67.2

5.6

376

4.6

64.1

5.8

+10
377
+280

5.2

63.5

6.1

378

8.5

60.2

6.8

379

10.4

58.3

7.1

380

12.6

56.1

7.4

4 57

7 28

66 03

381
+10
+35

8.2

57.8

4.9

382
+605-H.R.

15.1

50.9

4.9

383
+24+PF 9.97

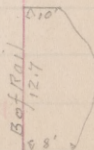
7.6

58.4

4.7

12.15

63.5 [✓]		
63.5 [✓]		
63.7 [✓]	Public Road	
63.8 [✓]	C.G.B. Pat.	
63.7	Public Road	
63.9 [✓]	CG Pat.	
63.6 [✓]	Box CU 1/4 8' x 8' x 9'	
63.3 [✓]		
63.3 [✓]		
63.34	Box CU 1/4 12' x 24' x 28'	
63.2 [✓]	T.P.	
63.1 [✓]		
63.1 [✓]		
62.9 [✓]		
62.7	Public Road	
62.6 [✓]		
61.9 [✓]	Pat. C.G. + 625 CG Public Road + 313 FENCE Poles	
61.6 [✓]		
61.3 [✓]	H.W. Drift in Tree 250' Ft. 382 Elev 62.3	
61.46	T.P.	"L" 381 + 282
61.1 [✓]	Fence R. Side	Bulkhead Trestle #4
	N.N.	"L" 381 + 175
61.1 [✓]	H.B. Forest Trail	4-7' x 16" stringers O.P.
61.3 [✓]	P.F. siding 1/2" x 14"	Caps 12' x 12' x 14'



"L"

66 ⁰³

385

9.9

56.1[✓]

4.9

386

8.7

57.3[✓]

4.9

H.W. 1905 established by H.W.P. trainmen for J.W.E.

0.9

1 ³⁶

2 ⁹⁴

64 ⁴⁵

387

3.8

60.7[✓]

3.2

388

5.9

58.6[✓]

3.3

BM.

4.02

389

8.0

56.5[✓]

3.8

390

8.1

56.4[✓]

3.9

391

7.6

56.9[✓]

3.8

392

9.5

55.0[✓]

4.0

+18

22.1

42.4[✓]

+35

7.1

57.4[✓]

393

7.8

56.7[✓]

3.8

5 ⁸⁷

3 ²⁵

66 ⁵⁷

394

2.2

64.4[✓]

5.4

395

0.7

65.9[✓]

4.9

396

0.1

66.5[✓]

4.7

397

0.6

66.0[✓]

4.8

398

6.1

60.5[✓]

4.6

399

6.3

60.3[✓]

4.7

4 ¹⁷

4 ⁸⁴

65 ⁹⁰

400

8.4

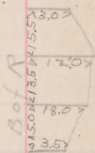
57.5[✓]

4.9

11.40

11.53

"L" 391+869.



61.14

Bulkhead Pile Trestle

61.14

#15

"L" 392+32 $\frac{1}{2}$

65.14

Markon Sta. at Forestville
Caps 12"x12"x14.5 RW
4 piles to abut.

63 $\frac{09}{09}$

BM #14 RR spike in post N.W. cor. Forestville Sta. platform.
10' Lt 387+352

61.34

61.24 P.J. CG Fence Leida CO

60.434

Geological B.M. 3" Pipe with brass cap 60' Lt 389
El 58.00 61.5 from R1.

60.74

60.64

60.74

60.54 (59.5)

N.W.

60.74 (59.2)

60 $\frac{70}{70}$

T.P.

61.24

61.74

61.94

61.84

62.04

61.94

H.W. 250' Rt 399 Drift in 1900 61.5

61 $\frac{73}{73}$

T.P.

61.04

-1153 66.03
+11.40 65.90
- .13 .13

"L"

65 90

401		6.6	59.3 ⁻	4.9
402		7.4	58.5 ⁻	4.8
403		7.2	58.7 ⁻	4.7
+83				4.7
404		6.7	59.2 ⁻	4.8
405		7.6	58.3 ⁻	5.0

3 72

4 92

64 70

406		5.8	58.9 ⁻	3.7
407		8.0	56.7 ⁻	3.8
408		7.1	57.6 ⁻	3.9
409		5.2	59.5 ⁻	3.8

4 80

3 55

65 95

410		7.9	58.1 ⁻	5.0
411		2.6	63.4 ⁻	4.7
412		7.4	58.6 ⁻	5.0
413		10.2	55.8 ⁻	5.2
414		10.9	55.1 ⁻	5.0
415		3.5	62.5 ⁻	5.0

+81

5 12

4 89

66 18

+80

5.1

416		13.5	52.7 ⁻	5.0
417		10.4	55.8 ⁻	4.6
+50		18.0	48.2 ⁻	

13.64

13.36

61.0[✓]61.1[✓]61.2[✓]61.2[✓] Private Road61.1[✓]60.9[✓]60 99 T.P.61.0[✓]60.9[✓]60.8[✓]60.9[✓]61 15 T.P.61.0[✓]61.3[✓]61.0[✓]60.8[✓]61.0[✓]61.0[✓]61 06

Private Road - Alameda Park,

T.P.

417 33²61.1[✓]

Private Road.

Bulkhead Pile
Trestle #1661.2[✓]417 63²61.6[✓]

+1364	6619
-1336	6590
28	29

N.Y.

4-4" X 16 stringers O.P.
caps 12 X 12 X 14.6 RW
4-Piles to abut.

Pile of Rail
41.2
41.6
41.0
41.0
41.5

"2"

F. B. Schaper Level
F. Main Rod
Dec 30-07

66 ¹⁸

418	9.4	56.8	4.4
419	10.2	56.0	4.4
420	11.9	54.3	4.2

6 ¹⁹

6 ⁰⁰

66 ³⁷

421	10.0	56.4	4.3
422	1.5	64.9	4.1
423	0.4	66.0	4.0
+50	0.1	66.3	

424	1.5	64.9	4.4
425	5.6	60.8	4.7
426	5.4	61.0	4.8

3 ²⁷

4 ⁷²

64 ⁹²

427	7.0	57.9	3.5
428	9.5	55.4	3.7
+95	15.1	49.8	
429	25.5	39.4	3.2
+12	27.0	37.9	
+45	21.2	43.7	

430	4.0	60.9	3.1
431	4.5	60.4	2.8
432	3.8	61.1	3.1

5 ⁴⁷

3 ⁰⁸

67 ³¹

433	6.2	61.1	5.6
-----	-----	------	-----

14.93

13.90

61.8⁺61.8⁺62.0⁺60 ¹⁸

8' Rt. "L" 420+00

BM #15 RR spike in cap Trestle #7 3rd bent62.1⁺Trestle begins "L" 419+52⁶62.3⁺

H.W. Rt 423 Drift Elev 61.9

62.4⁺4-7"x16" Stringers O.P.
Caps 12"x12"x14" R.W.
4 Piles to abut.62.0⁺61.7⁺61.6⁺61 ⁶⁵

T.P.

Bulkhead Pile
Trestle #1761.4⁺61.2⁺Trestle ends "L" 421+09⁵Trestle begins "L" 428+67²61.7⁺

H.W. Drift Elev 61.3

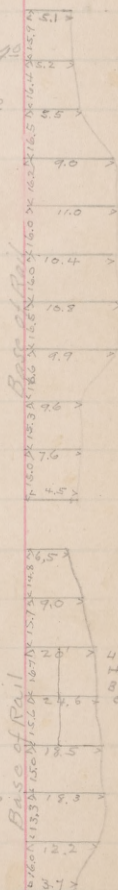
N.W.

Bulkhead Pile
Trestle #1861.8⁺

+ 20 Public Road

62.1⁺

+ 20 Public Road

61.8⁺4-7"x16" Stringers O.P.
Caps 12"x12"x14" R.W.
4 Piles to abut.61 ⁸⁴T.P. Trestle ends "L" 429+72⁵61.7⁺+14.92
-13.90
1.1367.31
66.18
1.134"x12" O.P.
Horizontal
Brace on
each side

"L"

67 31

434		6.4	60.9	5.6
435		1.4	65.9	5.3
436		2.1	65.2	5.3
437		6.2	61.1	5.4
438		6.0	61.3	5.4
	3 <u>45</u>			
		5 <u>33</u>		

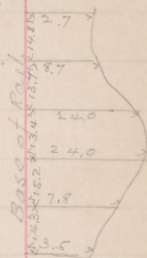
65 43

+82		27.3	38.1	
439		15.2	50.2	3.3
440		2.0	63.4	3.3
441		2.6	62.8	3.5
442		3.0	62.4	3.5
+40		9.3	56.1	
+50		12.7	52.7	
443		4.0	61.4	3.7
444		4.0	61.4	3.5
445		1.5	63.9	3.4
446		1.5	63.9	3.4
	4 <u>06</u>			
		3 <u>39</u>		

66 10

447		2.4	63.7	4.0
+95		9.6	56.5	4.5
448		15.3	50.8	4.2
+05		18.0	48.1	
449		0.8	65.3	3.9
450		0.3	65.8	3.9
	7.51	8.72		

Trestle begins "L" #38+47⁶
 4-7x16 stringers OF
 caps 12"x12"x14" RN
 4 piles to a bent

61.7⁺62.0⁺

Pile Trestle #

62.0⁺

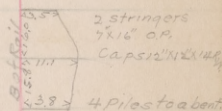
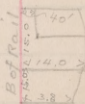
Public Road,

61.9⁺Trestle ends "L" #39+18⁶

Sta 439

61.9

H.W. H.W. Limb. in Tree 8" Diam Elev 63.1

61.9⁸T.P. Trestle begins L #42+52⁰Bulkhead Pile Trestle
#20W. W. Trest. Ends L #42+84⁶62.1⁺Trestle begins L #47+89³62.1⁺Bulkhead Trestle
#2161.9⁺Trestle ends L #48+19⁹61.9⁺

W. W.

61.7⁺61.9⁺62.0⁺62.0⁺62.0⁴

T.P.

62.1⁺62.1⁺

61.9

W. W.

62.2⁺62.2⁺

-8.72
 +7.51
 1.21

67.31
 66.10
 1.21

"L"

66 ¹⁰

451
+44

2.2 63.9[✓]

4.0

452
+25

2.3 63.9[✓]

4.2

5 ⁴⁴

4 ⁰⁹

67 ⁴⁵

453

2.6 64.9[✓]

5.4

454

3.5 64.0[✓]

5.3

455

3.0 64.5[✓]

5.3

456

6.1 61.4[✓]

5.2

457

6.0 61.5[✓]

5.2

458

4.3 63.2[✓]

5.4

3 ²¹

5 ²⁵

65 ⁴¹

459

4.1 61.3[✓]

3.5

460

5.8 59.6[✓]

3.6

461

4.8 60.6[✓]

3.5

462
+46

11.1 54.3[✓]

3.3

463

15.7 49.7[✓]

3.3

464

25.7 39.7[✓]

3.2

3 ⁷⁴

3 ¹⁰

66 ⁰⁵

+45

43.4 22.7[✓]

+58

43.4 22.7[✓]

+80

21.9 44.2[✓]

465

17.3 48.8[✓]

3.8

466
+78

18.3 47.8[✓]

3.8

467

19.6 46.5[✓]

3.8

2.37

12.44

H.W. Drift on Hillside ^{Left} ~~459~~ Elev 63.0

62.1⁺ Private Road.

Private Road

61.9⁺ Box CH 14.12 x 24.123'

62 ⁰¹ BM #16 Nail in hub 10' L + L" H 51 + 60. By sign Post.

Frame Trestle Ends L 468 + 27 ²

62.1⁺ Frame Trestle begins 1/2 L 461 + 80 ²

62.2⁺

62.2⁺

62.3⁺

62.3⁺

62.1⁺

62 ²⁰ T.P.

H.W. 1879 Elev 70°

61.9⁺ H.W. 1880 " 71° } Informing T.P. Brown.

61.8⁺ Frame Trestle #22

61.9⁺ Public Road under bridge

62.1⁺

62.2⁺

62 ³¹ T.P.

4 Horizl Braces
5" x 9" O.P.

W.W. Green
Valley
Creek

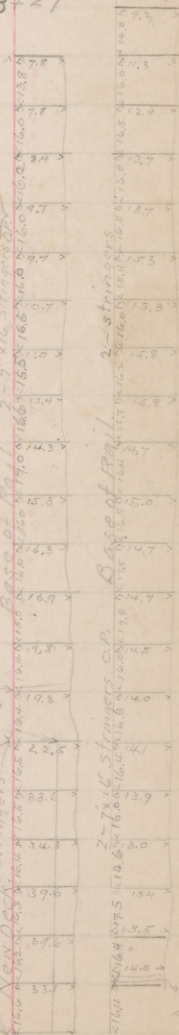
Posts 12" x 12" R.W.
Caps 12" x 12" x 14" R.W.
6-1x6 stringers are
4 posts tabent

62.3⁺

62.3⁺

62.3⁺

Private Road under Bridge



"L"

66 05

4 68

16.6 49.5 3.7

4 69

7.4 58.7 3.6

4 70

2.4 63.7 3.5

+559 HO

4 71

0.9 65.2 3.4

+112 PF

4 72

1.5 64.6 3.4

+083

4 40

3 55

66 90

4 73

4.8 62.1 4.8

+74

4 74

4.9 62.0 4.9

4 75

4.0 62.9 5.1

4 76

4.0 62.9 5.1

+08

4 77

3.0 63.9 4.9

4 78

2.7 64.2 4.9

+092 PF

4 79

6.0 60.9 4.6

+73 HO

4 47

6 24

65 13

4 80

11.8 53.3 2.8

4 81

12.7 52.4 2.8

4 82

10.7 54.4 2.8

4 83

9.3 55.8 2.7

+32

18.3 46.8

4 84

9.9 55.2 2.7

4 85

12.6 52.5 2.6

4 68

2 40

67 41

4 86

10.0 57.4 4.9

13.55

12.19

62.4 ✓

62.5 ✓

62.6 ✓

62.7 ✓

H.B. } Green Valley
P.F. } siding L 13'

62.7 ✓

CULV. 4" x 6" x 6 1/2'

62.50

T.P.

62.1 ✓

Box Culv. 4" x 6" x 31'

62.0 ✓

61.8 ✓

+70 Box Culv 6" x 6" x 20'

61.8 ✓

Box Culv. 12" x 18" x 20'

62.0 ✓

H.W. Drift in Tree At 483
Elev 62.9

62.0 ✓

62.3 ✓

H.B. } Green Valley
H.B. } siding L 13'

60.66

BM #17 spike in cap of trestle 8' L + 479 + 22
483 + 132 begins

62.3 ✓

62.3 ✓

62.3 ✓

62.4 ✓

Bulkhead
Pile Trestle
#22

N.W.

6-7 x 16 stringers O.P.
Cap 12" x 12" x 17' R.W.
4 pile to a bent.

62.4 ✓

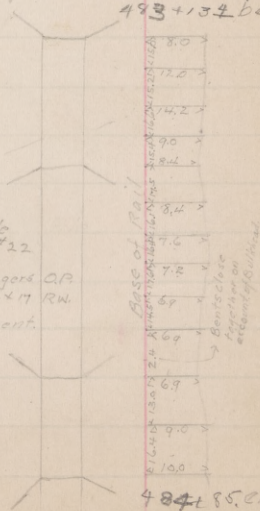
62.5 ✓

62.73

T.P.

62.5 ✓

+ 13.55	67.41
- 12.19	66.85
+ 1.36	1.36



484 + 85 ends

"L"

FC Schaper Level
Main Rod
Monday Jan 508

487	67 ⁴¹	10.8	56.6	5.0
488		16.0	51.4	5.0
481		10.5	56.9	5.2
	4 ⁰⁷	5 ⁰⁶		
	66 ⁴²			
490		2.4	64.0	4.2
491		3.1	63.3	4.2
492		3.0	63.4	4.0
493		2.8	63.6	4.1
494		3.7	62.7	4.2
	4 ⁰⁸	3 ⁷⁰		
	66 ⁸⁰			
495		2.8	64.0	4.4
496		4.2	62.6	4.7
497		6.0	60.8	4.8
432				
498		3.1	63.7	4.0
499		1.7	65.1	3.5
	5 ⁷⁴	3 ⁴¹		
	67 ¹³			
500		6.4	62.7	5.6
501		6.0	63.1	5.2
502		3.4	65.7	4.5
503		1.9	67.2	4.0
+40		2.7	66.4	
+60		add 7.5	76.6	
504		add 9.0	78.1	3.5
	5 ¹⁹	3 ⁵¹		
	14.08	70.24	15.62	

62.4^v

Pile Trestle #23 begins 512+24.6

62.4^v62.2^v

62.35

T.P.

62.2^v62.2^v62.4^v62.3^v62.2^vH.W. to Pt #24 Drift in
Brush Elev 63.2

62.72

T.P.

62.4^v62.1^v62.0^v

Box CUL 12" V 14' 100'

62.8^v (618)63.3^v

63.39

T.P.

63.5^v63.9^v

Box CUL 12" V 18' 118'

64.6^v65.1^v65.6^v

65.62

T.P. $\begin{array}{r} +19.08 \\ -15.69 \\ \hline 3.40 \end{array}$ $\begin{array}{r} 70.61 \\ 67.61 \\ \hline 3.00 \end{array}$

7.4	12.4
9.0	12.0
9.1	13.4
10.2	13.8
10.4	12.7
11.3	11.8
12.0	11.2
12.0	11.3
12.5	10.7
12.5	11.0
13.3	10.8
13.3	10.5
13.9	11.5
14.9	11.2
15.2	11.5
10.5	11.3
10.6	10.9
10.5	10.3
11.1	10.3
12.0	11.3
12.7	10.0
11.5	10.4
11.7	10.8
10.3	10.6
11.2	11.0
12.0	9.8
12.2	11.2

cont'd next page.

"Z"

70 81

+50			add 4.5	75.3 ^v	
+80			38	67.0 ^v	
505			3.9	66.9 ^v	4.6
506			4.8	66.0 ^v	4.2
507			3.0	67.8 ^v	3.9
508			1.8	69.0 ^v	3.2
509			1.4	69.4 ^v	2.5
510			1.2	69.6 ^v	2.5

5 64

2 39

74 06

511			12.9	61.2 ^v	5.6
512			10.0	64.1 ^v	5.3
+125			11.3	62.8 ^v	
513			16.9	57.2 ^v	4.9
514			16.5	57.6 ^v	4.6
515			15.5	58.6 ^v	4.4
516			16.3	57.8 ^v	4.3

5 76

4 25

75 57

517			16.2	59.4 ^v	5.5
518			16.5	59.1 ^v	5.2
519			15.2	60.4 ^v	4.9
520			14.5	61.1 ^v	4.6
521			16.8	58.8 ^v	4.4
522			16.8	58.8 ^v	4.2

5 12

3 97

16.52 76.72

10.61

"Z"

76 72

523			17.9	58.8	5.1
524			19.5	57.2	4.9
525			18.3	58.4	4.9
526			18.9	57.8	4.9
527			55.5	21.2	5.0
528			60.4	16.3	4.9
529			41.3	35.4	4.9

5.11.

13 00

6 62

10.7

83 10

530			2.5	80.6	11.2
531			0.2	82.9	11.1

11 76

0 64

94 22

+40

532			1.6	92.6	
			3.1	91.1	

0 40

12 50

81 82

532					10.3
-----	--	--	--	--	------

533			9.6	72.2	9.7
-----	--	--	-----	------	-----

4 35

10 08

76 09

534			17.0	59.1	4.5
-----	--	--	------	------	-----

+50

27.7 48.4

+85

31.9 44.2

535			37.5	38.6	4.5
-----	--	--	------	------	-----

29.51

30.14

7

J. B. Schaper Inst.
 35 Hickland Rod.
 Saturday Jan 11-08

76 ⁰⁹

+30		18.1	58.0'	
536		11.0	65.1'	4.7
537		11.1	65.0'	5.3
+25				4.8
538		2.0	74.1'	4.2
113 PRE				3.96
539		0.1	76.0'	4.1

3 ⁵⁹

4 ²⁷

75 ⁴¹

540		0.6	74.8'	4.0
+10				3.8
478 HB				
541		7.8	64.6'	4.8
49 PE				
+34 SE				4.89

542		10.0	65.4'	5.5
543		11.7	63.7'	6.3

3 ⁴³

6 ³⁵

72 ⁵⁹

544		9.3	63.3'	3.9
545		10.7	61.9'	4.2
546		11.2	61.4'	5.2
547		12.0	60.6'	5.3
+05		9.9	62.7'	

5 ⁰⁹

4 ⁵⁸

73 ¹⁰

548		10.7	62.4'	5.6
113 PRE				
549		7.1	66.0'	5.0

12.12

1510

71.4[✓]70.8[✓]

"L" leaves constd line

71.3[✓]

Road Public

71.9[✓]72.13[✓]

ON Δ

72.0[✓]

71.82

T.R.

71.4[✓] (70.8)71.6[✓]Public Road,
Fence R side70.6[✓]H.B. Camp SIX
PF 3 Siding R.70.52[✓]

ON Δ

69.9[✓]69.1[✓]

69.16

T.R.

H.W. Drift in Tree 10" in Diam
Left 544 Elev 60.268.7[✓]68.4[✓]67.4[✓]67.3[✓]

Box CULV 12" x 12" x 40'

68.01

67.5[✓]68.1[✓]

PF 3 Camp SIX Siding R

H.B.

2.07

"L"

73 ¹⁰

550

7.7

65.4^v

5.7

551

7.0

66.1^v

4.2

256

4 16

71 ⁵⁰

552

0.3

71.2^v

3.0

553

2.1

69.4^v

3.7

554

10.8

60.7^v

5.0

555

11.0

60.5^v

5.5

+0.5

+12

556

11.1

60.4^v

5.7

+0.4

5 73

6 94

70 ²⁹

557

5.0

65.3^v

4.4

558

3.7

66.6^v

4.5

559

4.2

66.1^v

4.6

+5.94

560

2.3

68.0^v

4.4

561

0.6

69.7^v

4.5

3 20

4 51

69 ⁴⁸

562

3.8

65.7^v

3.8

+32

563

7.0

62.5^v

4.2

+85

564

9.3

60.2^v

3.9

+20

+48

565

8.7

60.8^v

4.2

566

9.2

60.3^v

4.7

567

8.5

61.0^v

4.4

1199

1561

67.4

68.9

68.94

T.P.

68.5

67.8

66.5

66.0

65.2

Box Cul 12" x 18" x 33'

Fence R side

65.8

Box Cul 12" x 18" x 33'

64.56

B.M. #19 Nail in hub 10' R + "L" 556+00

65.9

Fence L side

65.8

65.7

Fence L side + 78. Bt CGB

65.9

Private Road + 74 Fence L side

65.8

65.78

T.P.

65.7

Fence R side

65.3

Fence R side

65.6

Begins 564+134

N.N.

Bulkhead Frame

65.3

Fence L side Trestle #25

Ends 564+282

64.8

65.1

-15.61

73.10

+11.99

69.48

-3.62

3.62

6-7750' strips at
60512x12x4446

Box Cul
12" x 18" x 33'

"L"

478 +558		69 <u>48</u>				
	4 <u>63</u>		4 <u>14</u>			
		69 <u>97</u>				
+50				7.4	62.6	
568				4.5	65.5	4.4
569				5.6	64.4	4.2
570				4.8	65.2	4.3
571				5.8	64.2	4.4
+55 +980 HB.				6.8	63.2	
572 +54 PF +64				6.3	63.7	4.5
573				6.3	63.7	4.0
	701		3 <u>90</u>			
		73 <u>08</u>				
574				3.0	70.1	5.9
+10						5.9
575 443				3.1	70.0	5.5
576				2.9	70.2	5.6
577				3.0	70.1	5.3
+35						5.2
578				2.6	70.5	5.1
579				0.1	73.0	5.3
	2 <u>71</u>		5 <u>16</u>			
		70 <u>63</u>				
B.M.						3.04
580				2.5	68.1	3.6
581				5.5	65.1	3.8
H.W.						11.5
	14.35		13.20			

pt C. G.
O. G.

65 34

T.P.

N.W.

65.6

65.8

65.7

65.6

Box CULV 8"X8"X24

65.5

115' Brick Vard
P.F. Siding ^{SPUR} L, + 06 Tunnel to Clay Pit
Box CULV. 9"X12"X41' under Track

66.0

66 07

T.P.

67.2

67.2

Private Road. Tile drain 8" diam 31'

67.6

Fence P side

67.5

67.8

67.9

Private Road.

68.0

67.8

67 92

T.P.

67.59

[12' Lt of L" 579 + 40

Geol. B.M. 3" iron pipe with brass Cap El 65 ⁰⁰

67.0

66.8

+14.35	706.3
-13.20	69.48
11.15	11.15

Information - Brown -

59.1

Hill at Sta 582 - Mark at Cherry Tree.

"Z"

70 63

582

13.3 57.3

4.1

583

21.5 49.1

4.0

584

18.4 52.2

4.0

+41

585

14.0 56.6

4.2

6 88

5 77

71 74

586

7.9 63.8

5.0

+50

4.8

+95

5.5

587

0.8 70.9

4.7

588

0.2 71.5

4.4

589

0.3 71.4

4.4

+45

4.3

590

4.5 67.2

4.2

+25

12.4 59.3

591

0.6 71.1

4.2

5 42

3 45

73 71

592

1.6 72.1

5.2

593

1.2 72.5

5.1

594

1.8 71.9

4.7

595

0.1 73.6

4.6

596

0.8 71.9

4.5

4 36

4 31

73 76

597

12.0 61.8

5.1

16.66

13.53

66.5

66.6

66.6

66.4

64 86

Private Road under Trestle
Fence both sides
8' L + 2' 584 + 95

B.M. #20 R.R. spike in Cap. Trestle #26, last bent

Trestle Begins 582 + 30.2

66.7

66.9

Public Road.

66.2

Box Cul 8'x8'x9'

67.0

Bulkhead Pile
Trestle #26

67.3

4-7x16" stringers O.P.
Caps 12x12x13'

67.3

4 Piles to a bent.

67.4

Public Road 2 extra Frame
bents have been
built at each pile
bent

67.5

2 posts 7x16 O.P.
Caps 7x16x8 O.P.

67.5

Trestle Ends 584 + 95

68 29

T.P.

68.5

68.6

69.0

Begins 590 + 18.5

69.1

Trestle #27
open culvert under
neats.

69.2

6-7x16 stringers O.P.
Caps 12x12x14' R.W.

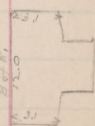
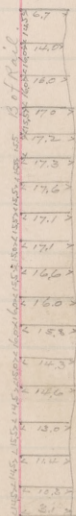
69 40

T.P.

Ends 590 + 32.4

68.7

-16.66 73.76
+13.53 70.63
-3.13 3.13



"L"

FC Schafer Level.
C.E. Widlund Rod.
Tuesday Jan 14 - 0.8

73 76

598

11.5 62.3

4.9

599

11.8 62.0

4.1

+25

6.6

3.8

600

0.1 73.7

3.5

+65

4.0

+93

3.7

601

6.0 67.8

3.7

+11.8
+1.28
+5.59

48.7

602

54.0

4.2

603

3 75

4 14

73 37

603

11.1 62.3

4.2

+17
+25
+41

4.3

604

1.4 72.0

4.6

+10.8
+16.2

605

0.3 73.1

4.7

606

0.8 72.6

5.0

607

1.3 72.1

5.6

608

1.9 71.5

6.0

3 28

5 99

70 66

+50

6.7 64.0

609

5.6 65.1

3.8

610

0.1 70.6

4.3

611

0.9 69.6

4.4

612

0.9 69.6

4.9

613

1.7 69.0

5.8

614

15.6 55.1

6.6

7.03

10.13

68.9

69.7

70.0

Public Road.

70.3

69.8

Ballast Drain

70.1

Public Road.

70.1

At C.G.P.

N.W. Box Culv 36" x 48" x 72' El. by Hand level.

69.6

Nat. surf. by Hand level.

69.62

T.P.

69.2

At C.G.P.

69.1

Public Road.

69.8

At C.G.P.

68.7

C.G.P.

68.4

67.8

67.4

67.38

T.P.

66.9

66.4

66.3

65.8

64.9

64.1

- 10.13

+ 7.03

- 3.10

73.76

70.66

3.10

"Z"

	3 ²³	70 ⁶⁶		6 ⁵⁸		
		67 ³¹				
615				5.7	61.6	3.7
616				0.7	66.6	4.4
617				3.5	63.8	4.8
618				1.2	66.1	5.3
+79				8.8	58.5	
619				4.3	63.0	6.0
620				4.6	62.7	6.6
	2 ³⁶			6 ⁶⁵		
		63 ⁰²				
621				2.4	60.6	3.0
622				6.1	56.9	3.6
+85				12.8	50.2	
623				13.0	50.0	3.8
+78 HB						
624				1.9	61.1	3.8
+11.6 PF						
625				2.8	60.2	3.9
+11						
+11						3.9
626				1.2	61.8	3.9
627				4.5	58.5	3.9
+01				4.6	58.4	
	3 ⁰²			2 ⁹²		
		63 ¹²				
628				0.5	62.6	3.8
629				4.6	58.5	4.0
+35						4.1
	9.61			16.15		

64 ⁰⁸

T.P.

63.6

62.9

62.5

62.0

Pipe drain 10 diam x 20'

61.3

60.7

60 ⁶⁶

T.P.

60.0

59.4

Box Culv. 36" x 42" x 40'

59.2

59.2

H.B. } Rocket Switch L
P.F. }

59.1

59.1

Private Road.

59.1

59.1

Ballast Drain.

660 ¹⁰

BM #21 RR spike in RR stump 20' L + L' 627 + 7

59.3

59.1

59.0

-16.15	70.66
+8.61	62.12
7.54	7.54

Private Road.

W. W. McCluskey (Loro)
 "L" C. E. Widlund Rod
 1-22-08

63 ¹²

630	6.8	56.3	4.1
631	7.5	55.6	4.3
632	7.5	55.6	4.3
633	1.4	61.7	4.0

517

399

64 ³⁰

634	1.0	63.3	4.9
635	6.7	57.6	4.9
+75	9.4	54.9	

636	8.1	56.2	4.9
+245 PF			
637	0.5	63.8	4.7
+24			
+25	9.4	54.9	

638	5.7	58.6	4.8
+70			4.9

639	5.1	59.2	4.8
-----	-----	------	-----

139 63.83 486

640	4.7	59.1	4.5
+45	9.4	54.4	

641	3.5	60.3	4.5
-----	-----	------	-----

641 + 74301
 + 2881
 6421 + 564

4.9	58.31	4.4
-----	-------	-----

2.13

338

62.58

643-2 + 564	4.9	57.7	3.5
-------------	-----	------	-----

58.6 H.W. identified by Mrs. Fidenhour.

59.0

58.8

58.8

59.1

59.13

T.P.

59.4

59.4

Box Culv 18" x 36" x 4d

59.4

59.6

RF } Pocket
HB } Switch L

Fence R side

Box Culv 12" x 18" x 30'

59.5

59.4

Pri. Road

59.5

Wed Jan 22 1908

59.44

T.P.

59.3

H.W. identified by Carrie Fidenhour

1307 Elev 555

Box Culvert 12" x 30" x 20"

59.3

Fence L side

Cattle Guard & Fence on L

" " " on R

59.4V

60.45 B.M. #22 R.R. Spike in tree 15' ~~44135~~

640+89

59.1

6258

6443+562 6.8 55.8 3.4

6454+564 8.8 53.8 2.9

6.62 2.87

66.33

6465+562 12.9 53.4 6.0

6476+562 2.3 57.0 5.1

6487+562 5.3 61.0 4.3

6488+564 4.3 62.0 3.5

6.24 3.45

69.12

65049+562 6.4 62.7 5.5

6510+562 2.4 66.7 5.0

6521+564 +1.0 70.1 4.1

250084 +13.0 82.1

6532+562 +20.0 89.1 3.4

End of Station

+31.2 3.42

70.37

1552+895

+8.4 Water tank

+96=531

End of Station

6533+564 1.4 69.0 4.5

+48 784 4.1

+80 364 5.0

6534+564 7.4 69.0 5.1

6535+564 6.5 63.9 5.6

+48+044

+50+064 5.8

+58 +144

+64 204

59.2

59.7

59.71 T.P.

60.3

61.2

62.0

62.8

62.88 T.P.

63.6

64.1

65.0

65.7

65.88 T.P.

H.B. Korbel Siding 20.4 FT
P.F.

65.9

65.7 Pri Road

65.4 " "

65.3 H.W. in basement of Korbel Winery 1835
Identified by Korbel Elev 56.3
1907 Elev 56.8

64.8

Fence on Both Sides

64.6 ✓

Pri Road

Fence on R Side

70.37

6570376+601

5.1

65.3

5.3

213 67.27 5.83

1634195

4.1

6587+564

+1.7

69.0

3.3

151 072

4.6

62.7

153213

4.1

6598+564

9.9

57.4

4.4

+66=225

185 412

17.8

19.5

37536

66059+564

12.5

54.8

5.1

6670+564

11.2

56.1

5.5

552

6.27

66.52

6621+564

11.9

54.6

4.8

6632+564

12.4

54.1

4.8

+61+574

+44+664

15.1

51.4

+462726

6643+564

6.1

60.4

5.4

6654+564

3.4

63.1

5.7

213

5.47

63.18

6665+564

+9.2

72.4

2.8

6676+564

+15.0

81.2

3.8

6687+564

+3.0

66.2

5.4

6698+564

4.0

59.2

7.0

1.13

57.51

7.00

57.31

64.5 P.F.

64.54

H.B. Korbel Siding

64.0

Ballast Drain

63.2 Pri Road

62.9

3 Bent Pile Trestle
Bulkhead

W.W.

6-8"x16" O.P. Stringers

62.2

12"x12"x14" RW. Caps.

12.5
11.3
6.6

61.8 ✓

61.00 #23 B.M. Spike in tree 15 Ft Rt sta 66 + 00
0+12

61.7

61.7

2 Bent Pile Trestle

12"x12"x14" Caps.

W.W.

6-8"x16" O.P. Stringers

8
3.5

61.1

60.8

61.05 T.P.

60.4

59.4

57.8

56.2 ✓

56.15 ✓ T.P.

57.31

669728+284

2.1

67069+564

3.3

54.0

2.7

67170+564

4.9

52.4

4.9

~~1568~~ B.C.T.2 + ⁶²~~62~~

4.7

~~1368~~ C.C. 2.4 + 922

5.4

~~1518~~ C.C. 2.0301 + 1082

5.4

6721+564

7.7

49.6

5.9

6732+564

8.3

49.0

6.9

6743+564

7.7

49.6✓

7.1

4.75

7.06

55.03

6754+564

5.8

49.2

5.3

+0.2

+6.5

5765+564

5.8

49.2

5.3

20 764

7.0

48.0

6776+564

5.8

49.2

5.3

6787+564

5.5

49.5

4.5

6798+564

4.8

50.2

4.1

68079+564

3.6

51.4

3.1

6810+564

2.8

52.2

2.3

~~103~~ 1590

~~40~~ + 664

+182 756

4.1

50.31

2.62 56.15 150

6821+564

4.0

52.1

3.4

6832+564

4.5

51.6

3.9

55.2 Pri Road

54.6

52.4

52.6

51.9

51.9

51.4

50.4

50.2✓

50.25 T.P.

49.7

55.2 H.W. 67 identified H. Fusa

61.5 H.W. 35 " " "

49.7

Box Culvert 12"x18"x15'

49.7

50.2

50.9

51.9

52.7✓

W.W Low Trestle 4-8"x16" DP Stingers
14' Span.

53.53 B.M. 24 on tree 8' Rt Sta 68+125

52.7

6+8.2

52.2

56.15

68~~43~~56² 4.4 51.7 4.568~~54~~56² 5.6 50.5 5.168~~65~~56² 8.8 47.3 5.668~~76~~56² 9.3 46.8 5.7

5.67

5.63

56.19

68~~87~~56² 7.4 48.8 5.468~~98~~56² 5.5 50.7 5.069~~08~~56² 1.6 54.6 5.569~~10~~56² 6.0 50.2 5.969~~13~~56² 7.0 48.369~~21~~56² 1.8 54.4 5.469~~32~~56² 6.0 50.2 5.2

7.21 58.16 5.24

69~~43~~56² 4.4 53.8 6.669~~54~~56² 1.5 56.7 5.969~~65~~56² 1.4 56.8 5.769~~76~~56² +1.1 59.3 5.069~~87~~56² 5.0 53.2 4.469~~98~~56² 6.0 52.2 4.6

4.95 59.36 3.75

+42⁶⁷ 498⁶⁷+50⁶⁷ +06⁶⁷XX~~699~~56² 5.1 54.3 5.8+48⁶⁷ 96⁶⁷ 8.0 51.4

51.6

51.0

50.5

50.4

50.52 T.P.

50.8

51.2

50.7

50.3

Double Pipe 14" x 20

50.8

51.0

50.95 T.P.

51.6

52.3

52.5

53.2

53.8

53.6 ✓

54.41 T.P. End Jan. 22 1908.

} Cattle Guard

54.2

Box Culk 36" x 36" x 20'

N.W. 1/4 (B) - usher Level

R. Eton Rod

1-28-08

L

Replacimng notes on pages 14-15

157 73.63

194+98⁵ BOT. 3.

7.6 66.0 7.6

196+68⁵ CC. 6.30' R1

8.3 65.3 8.3

197

8.3 65.3 8.3

+70

10.1 63.5

+90

198

8.3 63.3 8.3

+28

+60

199

8.3 65.3 8.3

322 68.72 8.20

200

4.0 64.7 4.0

+50

5.9 62.8

201

5.1 63.6 4.5

202

5.2 63.5 4.6

203

5.3 63.4 4.5

204

7.0 61.7 4.9

4.20 63.76 4.8.6

205

68.76

205

6.8 62.0 5.3

206

6.3 62.5 5.6

207

6.1 62.7 6.0

208

6.6 62.2 6.6

209

6.9 61.9 6.9

8.25

5.76

12.01

72.06

U.S. Geod. B.M. Elev 70.00
20' At 1198+00-

66.0

65.3

65.3

Pipe Drain 12" X 19'

Patent Cattle Guard.

65.3

P.W. Road

Patent Cattle Guard

65.3

65.43

64.7

Box Culvert 12" X 12" X 12'

64.2

64.1

64.2

63.8

63.86

63.5

63.2

62.8

62.2

61.5 V (609)

5581 V B.M. = 8" P.R. Spike in Cap of Trestle

2201
976
12257206
5981
1225

N.W. McGlinsky Level
R. E. Ten Rod

L 2-3-08

59.36

7070564 4.2 55.2 4.2

7081+564 0.1 59.3 3.8

7082+564 +1.0 60.4 3.5

411 59.99 3.48

7083+564 4.4 55.6 4.3

7084+564 4.5 52.5 4.3

~~7085~~ 764 11.2 48.1

7085+564 0.0 60.0 4.2

461 60.54 4.06

7086+564 5.2 55.3 4.5

~~7087~~ 944

7087+564 +12.0 72.5 4.2

7088+564 +0.6 61.1 4.1

7089+564 +3.0 63.5 4.5

488 60.86 4.56

7110+564 +6.0 66.3 4.3

7181+564 5.7 55.2 4.3

7182+564 +2.0 62.2 5.0

7183+564 +1.5 62.4 4.3

~~7184~~ 234

7184+564 5.5 55.4 4.8

7185+564 +1.1 62.0 4.3

506 61.01 4.91

7186+564 1.1 53.9 5.1

7187+564 5.2 55.6 5.0

55.2

55.6

55.9

55.88 T.P.

55.7

55.7 H.W. Lt of 705 Drift in Tree Elev 54.0
42" X 24" X 18' Box Culv.

55.8

55.93 B.M. Spike in Sign Post is Lt ~~418.40~~
705+97

56.0

Ballast Drain

56.3

56.4

56.0

55.98 T.P.

56.1

56.0

55.9

56.0

Ballast Drain

56.1

56.0

55.95 T.P.

55.9

56.0 ✓

6/11

~~718~~ 207 + 464

~~718~~ 8 + 564

4.8

56.2

4.9

~~720~~ 19 + 564

15.0

66.0

4.9

~~720~~ 0 + 564

15.0

66.0

5.0

~~135~~ 954

~~728~~ 1 + 564

6.1

54.9

5.5

~~46~~ 524

5.02 60.51 55.2

~~728~~ 2 + 564

11.3

49.2

5.3

~~24~~ 103 + 664

35.3

25.2

5.3

~~725~~ 4 + 564

11.3

49.2

5.3

H.W. 1907

7.2

~~728~~ 5 + 564

8.2

52.3

4.9

64.9 60.04 69.6

~~474~~ 264

~~727~~ 6 + 564

9.5

56.5

4.9

~~139~~ 954

~~728~~ 7 + 564

16.0

66.0

4.2

~~728~~ 8 + 564

2.1

57.9

4.1

4.50 60.49 7.05

~~730~~ 29 + 564

5.4

55.1

5.3

~~730~~ 0 + 564

5.7

54.8

5.2

~~472~~ 684

6.7

53.8

~~732~~ 1 + 564

10.2

60.7

4.8

~~733~~ 2 + 564

5.3

55.2 ✓

4.5

Ballast Drain

56.1

56.1

56.0

H.B. Eagle Nest Siding

55.5

F.P.

55.45

55.2

55.2

Notes on Trestle in Topog Book.

55.2

55.3

identified by S.B. Jackson

55.6

53.55 B.M. ²⁶RR Spike in RR Stumps

70' At Sta. 726.85

F.P.

6+17

55.7

H.B.

55.8

55.9

55.99 v

J.P.

55.2

55.3

Box Cul. V 18" X 12" X 18'

55.7

56.0 v

60.49

73~~4~~3+564 58 54.7 53

7354+564 78 52.7 59

299 58.01 587

73~~6~~5+564 0.1 57.9 3.7

7376+564 1.4 56.6 4.3

7387+564 3.6 54.4 4.1

73~~9~~8+564 3.9 54.1 4.0

74039+564 9.7 54.3 4.2

74X0+564 6.0 51.0 5.1

245 55.11 535

H.W. 1907 2.3

7481+564 4.2 50.9 3.3

7482+564 4.7 50.4 4.2

74~~9~~3+564 5.3 49.8 4.9

7484+564 5.6 49.5 5.3

7485+564 6.6 48.5 5.9

181 54.00 592

7486+564 5.8 48.2 5.1

7487+564 6.1 47.9 5.2

+

74~~9~~8+564 6.0 48.0v 5.3

447 52.386.09

750 5.1 47.3 4.1

751 4.9 47.5 4.3

752 5.5 46.9v 4.9

55.2

54.6

54.62 T.P.

54.3

53.7

53.5

54.0

53.8

52.9

52.66

52.8 on information by J.B. Jackson

51.8

50.9

50.2

49.8

49.2

49.19 T.P.

48.9

48.8

Fence on Rt

48.7 ✓ End Feb. 3 1908

47.91 BM=27 RR Spike in RR Stump
50' Rt Sta 749+27

48.3

48.1

47.5 ✓

H.W. McCluskey Level
 F.J. Maim Rod
 L 2-15-08

5238

758 61 46.3 5.6

754 88 43.6 5.9

755 88 43.6 6.3

425 6.13

50.50

756 4.8 45.7 4.3

757 5.9 44.6 4.6

758 5.7 44.8 4.8

759 7.5 43.0 5.6

760 83 42.2 6.4

761 7.7 42.8 6.5

537 6.53

49.34

762 6.1 43.2 5.3

763 80 41.3 5.0

764 80 41.3 5.0

+312

765 12.9 36.4 4.7

+334

766 7.8 41.5 4.6

6.85 52.11 4.08

767 5.0 47.1 6.3

35 }

46.8

46.5

46.1

46.25 T.P.

46.2

45.9

45.7

44.9

44.1

44.0

43.97

44.0

44.3

44.3

BH Pile Trestle

44.6

4- 8"x16" Stringers

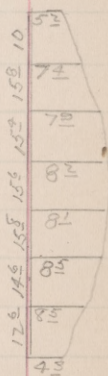
4 Piles to a bent

44.7

45.26

45.7 ✓

Pit C.G



N.W.M. & Cluskey
 Level
 F. Beebe Rod
 L 2-24-08

52.11

768	3.8	48.2	5.8
769	4.5	47.5	5.3
770	3.7	48.3	4.7
771	3.4	48.6	4.0
772	4.7	47.3	3.9

1.48

179 52.42

773	1.9	50.5	4.0
774	1.9	50.5	4.3
775	2.0	50.4	4.8

+80

776	6.7	45.7	5.8
777	7.4	45.0	6.4

5.62 50.40 7.64

778	5.4	45.0	4.5
-----	-----	------	-----

+39

+

779	5.7	45.0	4.7
-----	-----	------	-----

780	4.2	46.2	4.9
-----	-----	------	-----

781	5.0	45.4	5.0
-----	-----	------	-----

782	9.0	41.4	5.2
-----	-----	------	-----

783	10.9	39.5	6.1
-----	------	------	-----

784	9.0	41.4 V	6.6
-----	-----	--------	-----

444 48.38 6.46

+90

46.2

46.7

47.3

48.1

48.1

50.63v

48.4

48.1

47.6

Farm Xing

46.6

46.0

44.78 BM^F 28 Spike in NW. STUMP
15' IN 778+10

45.9 Mon. Feb 24, 1908

Pit C.B.

45.7

45.5

45.4

45.2

44.3

43.8v

43.94 T.P.

Farm Road.

L

48.38.

785	5.2	43.2	4.5
-----	-----	------	-----

786	3.0	45.4	4.5
-----	-----	------	-----

+	}
+	

787	4.9	43.5	4.8
-----	-----	------	-----

788	4.7	43.7	4.9
-----	-----	------	-----

789	3.5	44.9	5.0
-----	-----	------	-----

790	3.8	44.6	4.8
-----	-----	------	-----

791	4.0	44.4	4.7
-----	-----	------	-----

4.73 48.51 4.60

792	5.3	43.2	4.9
-----	-----	------	-----

793	5.7	42.8	5.1
-----	-----	------	-----

H.W. 1907	4.2	49.7	
-----------	-----	------	--

794	5.7	42.8	4.9
-----	-----	------	-----

+	}
+	

795	5.7	43.1	4.5
-----	-----	------	-----

796	4.6	43.9	4.0
-----	-----	------	-----

797	4.6	43.9	3.6
-----	-----	------	-----

5.35 50.35 3.51

+ H.B.

R.F.

798	6.0	44.3	5.3
-----	-----	------	-----

799	5.5	44.8	4.9
-----	-----	------	-----

800	4.9	45.4	4.3
-----	-----	------	-----

43 .9

43 .9

Opening.

43 .6

43 .5

43 .7

43 .6

43 .7

43.78. T.P.

43.6

43.4.

43.7 information by A.A. Stagg.

43 .6

P.T. C.B.

44.0

44.5

44.9

45.00

Sput to Lt.

45 .0

45 .4

46 .0 v

	50.35				
801			13.2	37.1	3.9
	7.99	52.74	5.00		
802			17.5	35.2	5.3
803			19.1	33.6	4.9
804			9.3	43.4	4.8
805			3.1	49.6	3.7
806			0.1	52.6	3.0
807			0.2	52.5	2.6
	5.90	56.17	2.47		
808			4.8	51.4	5.8
+					
809			5.0	51.2	5.0
810			4.7	51.5	5.0
811			4.6	51.6	5.0
812			5.3	50.9	5.2
	3.60	55.95	3.82		
813			4.5	51.4	4.8
+28° H.B.					
+					
+85° P.F.					
814			5.1	50.8	5.3
815			5.6	50.3	5.7
816			6.0	49.9	6.2
	2.85	52.69	6.11		
817			3.9	48.8	3.7
+58					
818+08					

Bh. Pile Trestle

4-8"X16" O.P. Stringers

45.35 BM. 29. R.R. Spike
in cap of Trestle

17 Cap of Trestle

47.4 6' PT. Sta 800+92

49.0

50.27 T.R.

50.4

512

512

512

510

52.35 B.M. #30 N.W. cor Depot.
P.R. Spino.

P.R. Spike

511

50.6

50.2

49.7

49.84 T.P.

49.0 ✓

99

N.W. McCluskey Level
F. Beebe Rod

5269

+75

818	4.7	48.0	4.4
-----	-----	------	-----

819	4.9	47.8	4.9
-----	-----	------	-----

820	5.6	46.1	5.4
-----	-----	------	-----

+78⁰

821	19.8	33.2	5.9
-----	------	------	-----

+40 Mill Creek 25.6

+95⁶

822	7.2	45.5	6.5
-----	-----	------	-----

2.25 48.32 6.62

+56² H.B.

+70¹

823+138 P.F

823	4.6	43.5	4.0
-----	-----	------	-----

824	6.2	42.1	4.9
-----	-----	------	-----

825	6.5	41.8	5.4
-----	-----	------	-----

826	5.6	42.7	5.1
-----	-----	------	-----

3.49 46.71 5.10

+ Face of Back Wall

+80 W.W. 21.1 25.6

827	17.5	29.2	4.4
-----	------	------	-----

+ Face of Back Wall

828	6.7	40.0	5.0
-----	-----	------	-----

829	6.0	40.7	5.3
-----	-----	------	-----

+04

Mill St.

48.3

48.8

47.3

Face of S.W.

46.8

Bh Pile Trestle
 5-8" x 16" O.P. Stringers
 4 Piles to a bent
 W.W. Board Walk on L.T.

Face of S.W.

46.2V

46.07 ✓ T.P.

Length 405'

Co. Road

44.3

Tues Feb 25, 1908

43.4

42.9

43.2

43.22

T.P.

Bh Pile Trestle

42.3

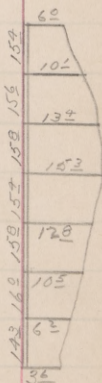
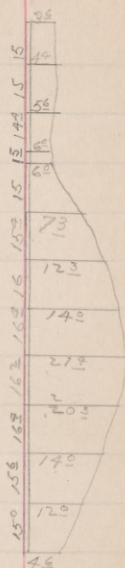
4-8" x 16" O.P. Stringers

4 Piles to a bent.

41.7

41.4 ✓

Pri. Road



76.71

830

6.4

40.3

53

+75

831

4.0

42.7

4.4

725 49.60 4.36

HW. 1907

+35

832

9.0

40.6

6.2

833

4.7

44.9

4.7

1.36

834

3.9

45.7

3.3

835

2.5

47.1

1.9

504 53.71 0.93

836

7.6

46.1

5.6

837

7.7

46.0

5.6

838

5.6

48.1

5.0

839

7.0

46.7

4.0

258

+86

Face of Backwall)

840

8.2

45.5

2.5

841

29.6

2.1

842

45.0

1.8

6.06 57.98 1.79

+127 Face of Backwall)

843

3.2

54.8

5.1

+70 Face of Backwall)

844

12.2

45.8V

4.9

41.4
Co. Road
42.3
42.35 T.P.
48.6 information by A. Chaigneau
Box Culv. 48"x48"x20

43.4
44.9
48.24 U.S. Geol. B.M. 60' AT 833
Elev 46
46.9

47.7
48.67 B.M. #31. R.R. Spike in
6' LT 835+45 R.W. Stamp
48.1

48.2

48.7

49.7

Bh Trestle
1st 5 Bents 4-12"x12" Frame
Last 10. " Pile 1 1/2

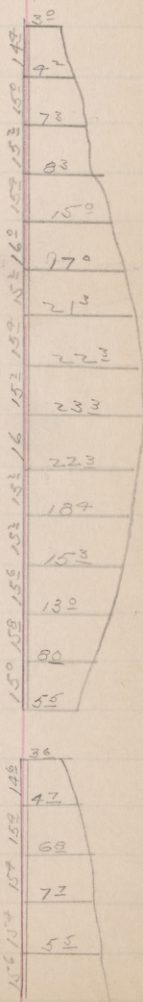
51.2
51.6 4-8"x16" O.P. Stringers

51.9 4 Pile to a bent

51.92 T.P.

52.9

53.1 Bh Frame Trestle
6-8"x16" Stringers
4-12"x12" to a bent



57.98

845		12.6	45.4	4.7
-----	--	------	------	-----

+ Face of Back Wall

846		4.4	53.6	4.4
-----	--	-----	------	-----

847		1.0	57.0	3.9
-----	--	-----	------	-----

372 57.62 4.08

+ Face of Back Wall

848		15.0	42.6	3.9
-----	--	------	------	-----

+ Face of Back Wall

849		7.8	52.8	4.0
-----	--	-----	------	-----

850	X	4.8	52.8	4.8
-----	---	-----	------	-----

+40

851		5.9	51.7	6.1
-----	--	-----	------	-----

852+50		4.5	53.1	8.4
--------	--	-----	------	-----

853+50		6.3	51.3	9.9
--------	--	-----	------	-----

420 51.90 992

854		4.4	47.5	4.8
-----	--	-----	------	-----

+

+84² Face of Back Wall

855		17.2	34.7	5.2
-----	--	------	------	-----

+30

856	Hulbert Creek.		20.4	5.2
-----	----------------	--	------	-----

+40

+46¹ Face of Back Wall

+50

857		8.0	43.9	5.4
-----	--	-----	------	-----

858		7.3	44.6 ✓	5.4
-----	--	-----	--------	-----

62
87
68
72
71
88
37
79

	75	152-152
	172°	
	175	
	263	
	275	
	278	
	280	
	289	
	140	
	112	
	8!	

47 .70 T.P.

46.7 6-8" x 16" OP. Stringers
4 Plyesto cement
42' Board Walk on Rt
6' " " " Lt

46.7

Pr Road

46.5 ✓

51.90

859 4.5 47.4 5.3

⁵²⁵
B.M #32 53.38 4.47

860 6.7 46.7 6.2

+ }
- }

861 4.3 49.1 5.2

862 4.0 49.4 4.7

863 4.4 49.0 4.4

864 4.5 48.9 4.3

865 4.6 48.8 4.2

866 4.5 48.9 4.0

51.3 54.37 4.14

867 6.2 48.2 5.1

868 8.0 46.4 4.9

869 4.8 49.6 4.4

870 5.0 49.4 4.1

871 6.3 48.14 4.5

54.0 55.46 4.31

872 8.0 47.5 5.5

873 3.6 51.9 4.8

874 2.2 53.3 4.2

875 5.0 50.5 4.6

876 5.6 49.91 5.2

877 54.0 55.81 5.05

46 .6

47 .43 G'Lt Sta 859+40 RR Spike in Stump

47 .2

Fit C.G.

48 .2

48 .7

49 .0

49 .1

49 .2

49 .4

49 .24 T.P

49 .3

49 .5

50 .0

50 .3

49 .9✓

50.06✓ T.P

50 .0

50 .7

51 .3

50 .9

50 .31

50.41 T.P

55.81

877 6.5 49.3 5.4

878 5.7 50.1 4.9

879 5.5 50.3 4.6

+
+ }

880 5.5 50.3 4.9

881 6.5 49.3 5.7

882 6.5 49.3 5.2

5.63 56.22 5.22

883 5.5 50.1 5.5

884 4.7 51.5 4.7

885 3.0 53.2 4.9

+52°

886 34° 5.2

+30

B.M. 33

6.67

30°

30°

6.09 55.64

+89°

887 5.4 50.2 4.5

888 3.0 52.6 4.4

889 57.8 4.3

+

+50

33.3

890 12.2 43.4 4.2

+

50.4

50.9

51.2

Pit C.G.

50.9

50.1

50.6

50.59

T.P.

50.7

51.5

51.3

Face of Backwall

Bh. Pile Trestle

51.0

W.W.

6-8"x16" OP Stringers

4 Piles to a bent

49.55

RR Spike in cap of Trestle

6' RT Stg 886+30

Face of Backwall

51.1

51.2

51.3

Face of Backwall

51.3

W.W.

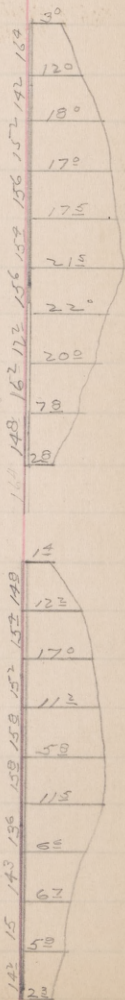
Bh. Pile Trestle

51.4

6-8"x16" OP Stringers

4 Pile to a bent

Face of Backwall



11 WMS Cluster (Lorel)
 L Beebe Rod
 2-26-08

5564

891 2.5 53.1 4.2

892 4.1 51.5 4.1

4.48 56.10 4.02

+31⁵

893 16.3 37.8 4.5

+49⁵ Face of Bath wall

894 3.0 53.1 4.8

895 4.0 52.1 5.0

896 11.1 45.0 5.1

+22⁵

+50 306 25⁵

+94⁵

4.42 55.54 4.98

897 10.9 44.6 4.5

898 5.5 50.0 5.0

899 6.9 48.6 4.7

900 4.5 51.0 4.2

+47³

901 20.5 35.0 4.3

+27³

902 2.0 53.5 4.2

4.20 55.70 4.04

903 4.9 50.8 4.8

904 4.5 51.2 4.8

904+58⁵

905+22¹

51.7

51.5

51.62

T.P. Wed. Feb. 26 1908

Face of Backwall

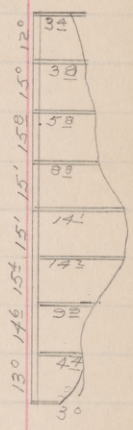
51.6

Bh. Pile Trestle.
4 O.P. Stringers 8" x 16"
4 Piles to a bent.

51.3

51.1

51.0



Face of Backwall

Bh. Pile Trestle.
W.W. 4-8" x 16" O.P. Stringers
4 Piles to a bent.

Face of Backwall

51.12

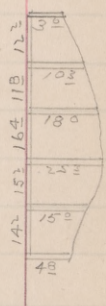
T.P.

51.0

50.5

50.8

51.3



Face of Backwall

Bh. Pile Trestle
6-8" x 16" O.P. Stringers
4 Piles to a bent.

Face of Backwall

51.2

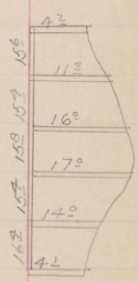
51.3

51.50

T.P.

50.9

50.91



H.B. + R

P.F. No 9

Siding 12° R.

55.70

905

5.3

50.4

4.7

1.55 55.47 478

+

906

5.1

50.4

4.6

907

7.3

48.2

5.1

908

5.0

50.5

4.9

+70°

909

5.1

50.4

4.5

+34.3

910

5.0

50.5

4.8

4.67 55.47 4.67

911

8.5

47.0

5.1

912

5.5

50.0

5.0

913

4.7

50.8

4.5

914

13.7

41.8

5.0

915

6.4

49.1

4.7

4.79 55.58 4.68

916

1.7

53.9

4.6

917

5.3

50.3

4.6

+18

5.1

46.5

+14.5

32.4

+65

918

7.2

48.41

4.8

2.22 55.25 2.55

919

3.9

51.3

4.2

51.0

50.92 B.M. #34 - 15' L 905+05 R.R. Spike
in Stump
P.F.

50.9

50.4

50.6

P.F. No 9 open.

51.0

H.B.

50.7

50.80 T.P.

50.4

50.5

51.0

50.5

50.8

50.79 T.P.

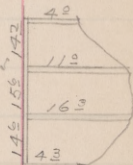
51.0

51.0

Face of Back wall

W.W. 4h Pile Trestle
4-6" X 16" OP Stringers
4 Piles to abut

Face of Back wall



51.8 ✓

53.03 B.M. #35 R.R. Spike in Am. Stump
10' LT Sta 918+75

51.0

N.W. M^s Chuskey Level
 F Beebe Rod

55.25

920	1.0	54.2	4.1
921	15.4	39.8 ✓	4.9

+213

+792

922	5.6	49.6	4.8
923	3.6	51.6	4.4
924	0.1	55.1	4.2

504 56.19 4.10

+

+75 W.W. 40.0 ✓

+

925	7.5	48.7	5.1
926	4.0	52.2	5.0
927	6.2	50.0	5.2
928	7.7	48.5	5.7
929	6.5	49.7	6.1
930	5.5	50.7	5.2

463 55.69 5.13

931	4.5	51.2	5.0
932	3.0	52.7	4.5
933	5.5	50.2	4.7
934	3.0	52.7	4.5
935	4.5	51.2	4.5
936	2.5	52.2	4.9

373 56.01 341

937	4.0	52.0 ✓	4.8
-----	-----	--------	-----

51.1

50.4v

H.B. Spur 13' RT.

P.F.

50.4

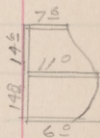
50.8

51.0v

51.15v T.P.

Face of Backwall
 Bn Pile Trestle.
 6-8"x15" O.P. Stringers.
 7 Piles to a bent.

Face of Backwall



51.1 Sat. Feb. 29, 1908

51.2

51.0

50.5

50.1

51.0

51.06 T.P.

50.7

51.2

51.0

51.2

51.2

50.8

52.28 B.M. #36 RR spike in stump

51.2v 8' L + Sta 936 + 04

11

56.01

938	0.1	55.9	5.0
939	1.2	54.8	4.9
940	+2.5	58.5	4.9
941	-0.2	55.8	4.8
103			

942	1.3	54.7	4.7
-----	-----	------	-----

3.65 54.96 4.70

943	1.0	54.0	4.0
-----	-----	------	-----

108

944	+2.0	57.0	4.1
-----	------	------	-----

945	5.3	49.7	4.8
-----	-----	------	-----

946	4.4	50.6	5.0
-----	-----	------	-----

947	5.2	49.8	5.4
-----	-----	------	-----

948	6.9	48.1	6.1
-----	-----	------	-----

4.17 53.10 6.03

949	7.6	45.5	4.4
-----	-----	------	-----

950	0.0	53.1	4.1
-----	-----	------	-----

951	11.4	41.7	4.9
-----	------	------	-----

952	12.4	40.7	5.3
-----	------	------	-----

953	14.0	39.1	4.8
-----	------	------	-----

954	5.2	47.9	4.2
-----	-----	------	-----

5.07 53.96 4.21

955	0.0	54.0	4.9
-----	-----	------	-----

956	3.0	51.0	5.0
-----	-----	------	-----

957	1.5	52.5	4.8
-----	-----	------	-----

958	9.0	51.0	5.2
-----	-----	------	-----

51.0

51.1

51.1

51.2

Ballast Drain

51.3

51.31

T.P.

51.0

Ballast Drain

50.9

50.2

50.0

49.6

48.9

48.93

T.P.

48.7

49.0

48.2

47.8

48.3

48.9

48.89

49.1

49.0

49.2

48.8V

11

53.36

959 6.0 48.0 57

4.77 52.94 5.19

960 4.8 48.1 4.5

961 4.6 53.5 4.1

962 4.2 54.9 4.1

+34

+32

963 4.0 48.2 4.1

4.22 53.36 3.80

964 6.5 46.9 4.7

+35

+95

965 5.0 48.4 5.0

966 6.4 47.0 5.6

967 6.6 46.8 6.4

968 7.5 45.9 7.4

2.74 48.75 7.35

969 4.8 43.9 3.8

970 4.9 43.8 4.6

+34

+98

971 5.0 43.7 4.5

972 5.0 43.7 4.9

973 4.2 44.5 4.2

3.45 48.00 4.20

974 3.3 44.7 3.7

48.9

48.17

48.4

48.8

48.8

At C.G.

48.8

48.14

B.M. #37 RR Spike in Stump
10' At Sta 963+55

48.7

H.B. to L

R.F. No 9.

48.4

47.8

47.0

46.0

46.01

44.9

44.13

44.6

R.F.

H.B.

44.2

43.8

44.5

44.55

44.3V

12

48.00

975		4.0	44.0	4.0
976		5.4	42.6	4.4
977		4.8	43.2	4.3
978		6.2	41.8	
979		4.7	43.3	
116	44.53	463		
980		2.0	42.5	
9450.4		1.3	43.2	
981		3.0	41.5	
420		c		
982		8.7	35.8	
983			36.6V	

498

44.0 Camp Vacation.

43.6

43.7✓

43.37

Fence

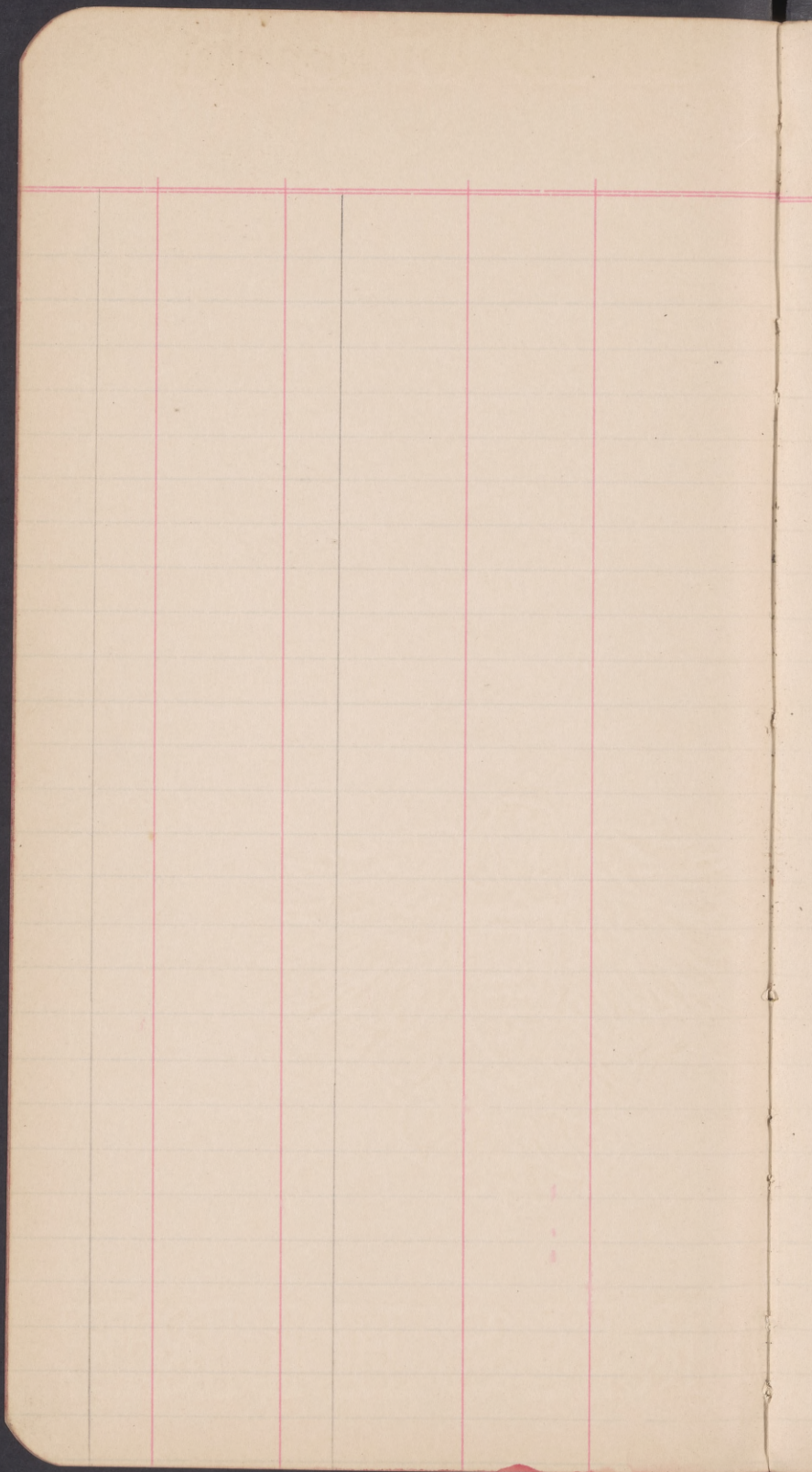
43.55✓

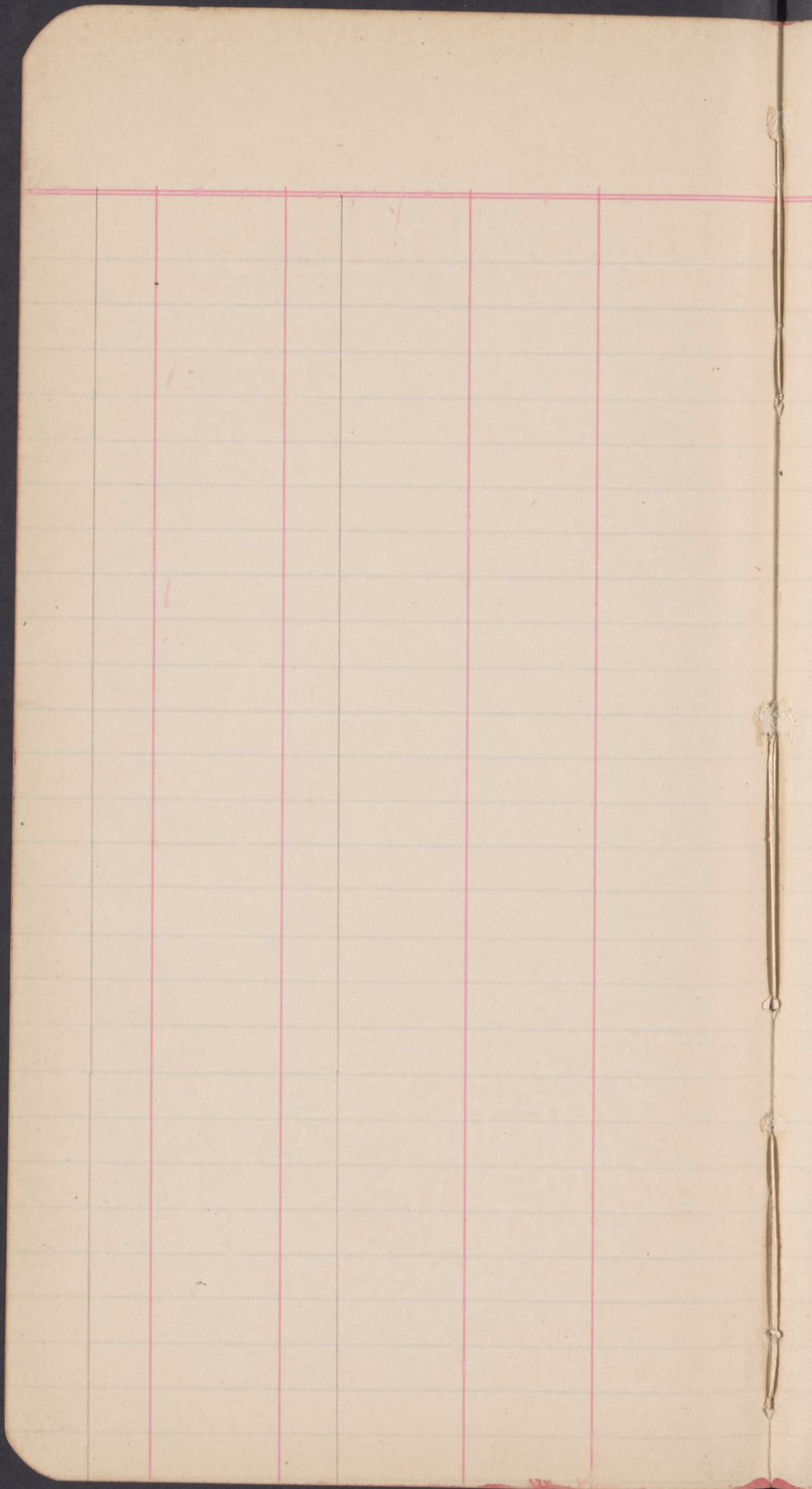
B.M. #38 R.R. Spike in Stump
75' Lt Sta 282+00

End Feb. 29, 1908

A blank ledger page with a grid of 10 columns and 20 rows. The columns are defined by vertical lines, with the first column being the widest. The rows are defined by horizontal lines. The page is cream-colored and shows signs of age.

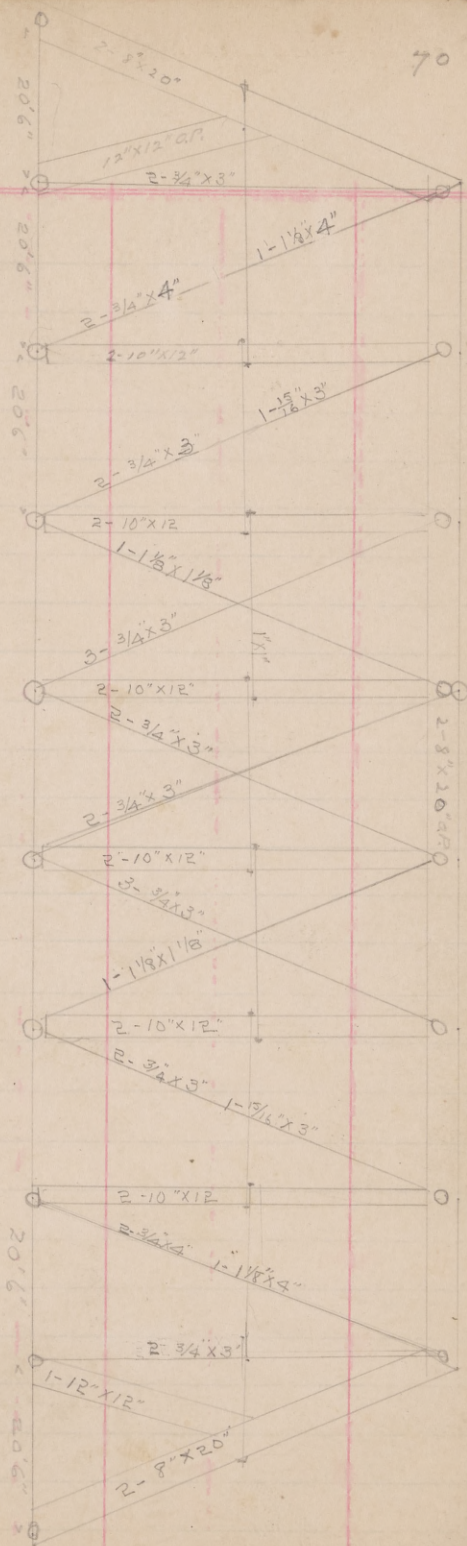
This image shows a blank ledger page. It features horizontal ruling lines across the page. There are three vertical red lines that divide the page into four columns of varying widths. The leftmost column is the widest, followed by a narrower column, then another narrow column, and the rightmost column is the narrowest. The page is otherwise empty of any text or markings.





[illegible]

Wood Truss at Russian River Crossing To Fulton
Near Camp Six



"L"

F.C. Schafer Level
C.E. Widlund Rod

Thursday Dec 12th '07

"L" line off const'd Track.

71 35

195+67[#]

5.9

196+27[#]

6.7

+87^S_Δ C.C. 3°30'R

6.61

197

6.2

198

6.6

199

6.7

200

6.6

3 22

6 48

67 89

201

4.3

202

4.0

203

7.1

204

12.4

+06^S_Δ CCT 1°

12.50

205

11.0

206

5.9

1 83

4 62

65 10

+20

2.6

207

3.0

+06^S E.C.

2.3

65.5✓

64.7✓

64.74✓ on Δ

65.2✓

64.8✓

64.7✓

64.8✓ In Const'd track.

64. 87 T.P.

63.6✓

63.9✓

60.8✓

55.5✓

55.39✓ on Δ

56.9✓

62.0✓

63. 27 T.P.

62.5✓

62.1✓

62.8✓ Const'd line Top of T.c.

Turns $\frac{1}{4}$ " Line

Chas E. Widlund Rod.

		72 <u>22</u>		
			4 <u>23</u>	84 <u>99</u>
5 <u>85</u>		73 <u>84</u>		
			12 <u>56</u>	61 <u>28</u>
4 <u>36</u>		65 <u>84</u>		
			2 <u>47</u>	63 <u>17</u>
10 <u>92</u>		74 <u>09</u>		
			68 <u>1</u>	67 <u>28</u>

L 162+57⁵ CCT 1/2 Back =

A 162+57⁵ Ahead

T.P. 15 R of 181+00

T.P. 2' L " 183+60

T.P. Spike in plank 5' R of 186+00

"A" 191+65² Back = A = P.O.T.

"L" 191+64² Ahead. L = E.C.

4 T.P. AT 193+00 El 67 ²⁶

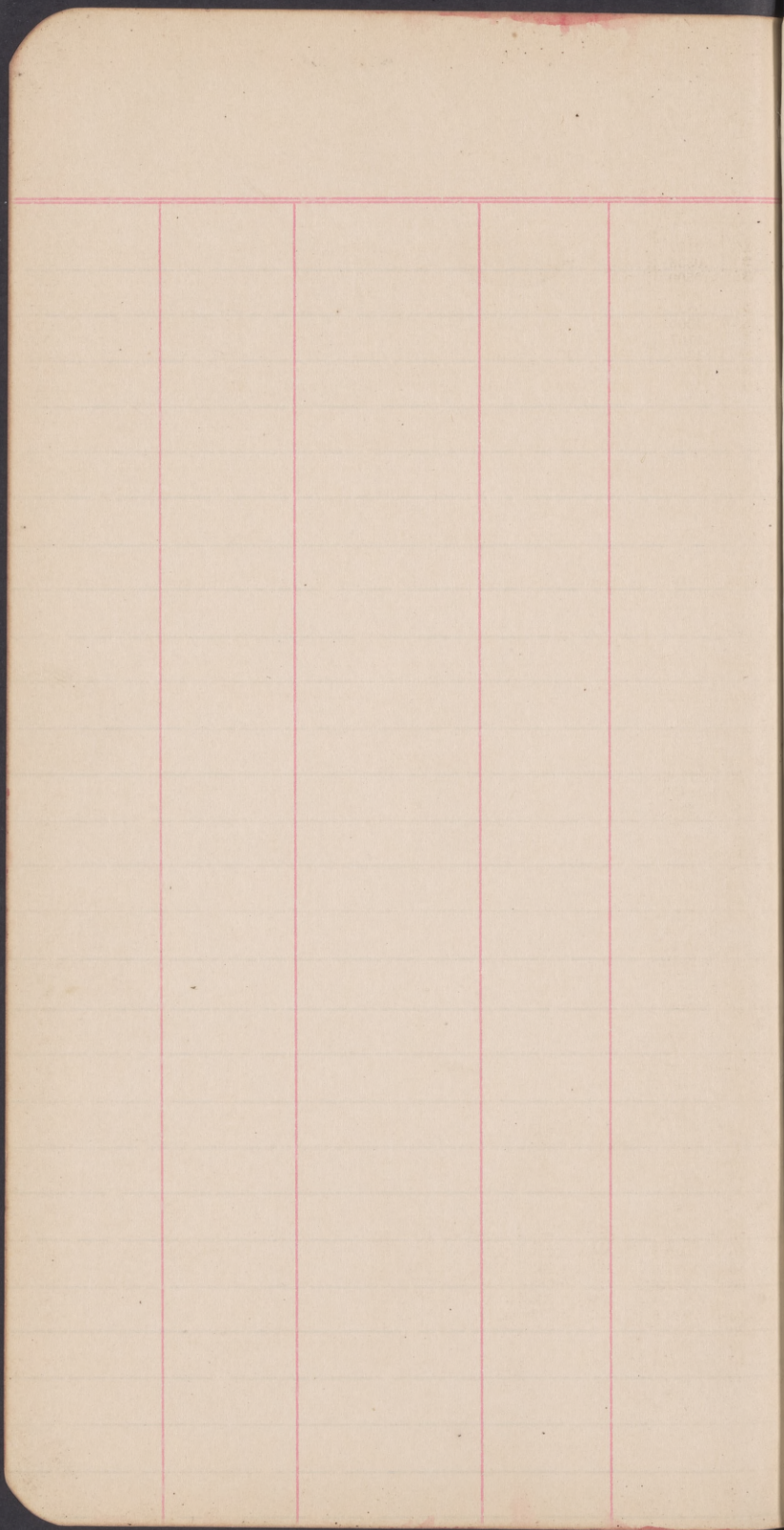


TABLE IV.—MINUTES IN DECIMALS OF A DEGREE.

1'	.0167	11'	.1833	21'	.3500	31'	.5167	41'	.6833	51'	.8500
2	.0333	12	.2000	22	.3667	32	.5333	42	.7000	52	.8667
3	.0500	13	.2167	23	.3833	33	.5500	43	.7167	53	.8833
4	.0667	14	.2333	24	.4000	34	.5667	44	.7333	54	.9000
5	.0833	15	.2500	25	.4167	35	.5833	45	.7500	55	.9167
6	.1000	16	.2667	26	.4333	36	.6000	46	.7667	56	.9333
7	.1167	17	.2833	27	.4500	37	.6167	47	.7833	57	.9500
8	.1333	18	.3000	28	.4667	38	.6333	48	.8000	58	.9667
9	.1500	19	.3167	29	.4833	39	.6500	49	.8167	59	.9833
10	.1667	20	.3333	30	.5000	40	.6667	50	.8333	60	1.0000

TABLE V.—INCHES IN DECIMALS OF A FOOT.

1-16	3-32	$\frac{1}{8}$	3-16	$\frac{1}{4}$	5-16	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{7}{8}$
.0052	.0078	.0104	.0156	.0208	.0260	.0313	.0417	.0521	.0625	.0729
1	2	3	4	5	6	7	8	9	10	11
.0833	.1667	.2500	.3333	.4167	.5000	.5833	.6667	.7500	.8333	.9167

TABLE VI.—RADII, ORDINATES AND DEFLECTIONS.

Deg.	Radius	Mid Ord	Tan Def.	Chd. Def.	Def for 1 Foot	Deg.	Radius	Mid Ord	Tan Def.	Chd. Def.	Def. for 1 Foot
0° 10'	34377.	.036	.145	.291	0.05'	7°	819.0	1.528	6.105	12.21	2.10'
20	17189.	.073	.291	.582	0.10	20'	781.8	1.600	6.395	12.79	2 20
30	11459.	.109	.436	.873	0.15	30	764.5	1.637	6.540	13.08	2 25
40	8594.4	.145	.582	1.164	0.20	40	747.9	1.673	6.685	13.37	2 30
50	6875.5	.182	.727	1.454	0.25	8	716.8	1.746	6.976	13.95	2 40
1	5729.6	.218	.873	1.745	0.30	20	688.2	1.819	7.266	14.53	2 50
10	4911.2	.255	1.018	2.036	0.35	30	674.7	1.855	7.411	14.82	2 55
20	4297.3	.291	1.164	2.327	0.40	40	661.7	1.892	7.556	15.11	2 60
30	3819.8	.327	1.309	2.618	0.45	9	637.3	1.965	7.846	15.69	2 70
40	3437.9	.364	1.454	2.909	0.50	20	614.6	2.037	8.136	16.27	2 80
50	3125.4	.400	1.600	3.200	0.55	30	603.8	2.074	8.281	16.56	2 85
2	2864.9	.436	1.745	3.490	0.60	40	593.4	2.110	8.426	16.85	2 90
10	2644.6	.473	1.891	3.781	0.65	10	573.7	2.183	8.716	17.43	3.00
20	2455.7	.509	2.036	4.072	0.70	30	546.4	2.292	9.150	18.30	3.15
30	2292.0	.545	2.181	4.363	0.75	11	521.7	2.402	9.585	19.16	3.30
40	2148.8	.582	2.327	4.654	0.80	30	499.1	2.511	10.02	20.04	3.45
50	2022.4	.618	2.472	4.945	0.85	12	478.3	2.620	10.45	20.91	3.60
3	1910.1	.655	2.618	5.235	0.90	30	459.3	2.730	10.89	21.77	3.75
10	1809.6	.691	2.763	5.526	0.95	13	441.7	2.839	11.32	22.64	3.90
20	1719.1	.727	2.908	5.817	1.00	30	425.4	2.949	11.75	23.51	4.05
30	1637.3	.764	3.054	6.108	1.05	14	410.3	3.058	12.18	24.37	4.20
40	1562.9	.800	3.199	6.398	1.10	30	396.2	3.168	12.62	25.24	4.35
50	1495.0	.836	3.345	6.689	1.15	15	383.1	3.277	13.05	26.11	4.50
4	1432.7	.873	3.490	6.980	1.20	30	370.8	3.387	13.49	26.97	4.65
10	1375.4	.909	3.635	7.271	1.25	16	359.3	3.496	13.92	27.84	4.80
20	1322.5	.945	3.718	7.561	1.30	30	348.5	3.606	14.35	28.70	4.95
30	1273.6	.982	3.926	7.852	1.35	17	338.3	3.716	14.78	29.56	5.10
40	1228.1	1.018	4.071	8.143	1.40	18	319.6	3.935	15.64	31.29	5.40
50	1185.8	1.055	4.217	8.433	1.45	19	302.9	4.155	16.51	33.01	5.70
5	1146.3	1.091	4.362	8.724	1.50	20	287.9	4.374	17.37	34.73	6.00
10	1109.3	1.127	4.507	9.014	1.55	21	274.4	4.594	18.22	36.44	6.30
20	1074.7	1.164	4.653	9.305	1.60	22	262.0	4.814	19.08	38.16	6.60
30	1042.1	1.200	4.798	9.596	1.65	23	250.8	5.035	19.94	39.87	6.90
40	1011.5	1.237	4.943	9.886	1.70	24	240.5	5.255	20.79	41.58	7.20
50	982.6	1.273	5.088	10.18	1.75	25	231.0	5.476	21.64	43.28	7.50
6	955.4	1.309	5.234	10.47	1.80	26	222.3	5.697	22.50	44.99	7.80
10	929.6	1.346	5.379	10.76	1.85	27	214.2	5.918	23.35	46.69	8.10
20	905.1	1.382	5.524	11.05	1.90	28	206.7	6.139	24.19	48.38	8.40
30	881.9	1.418	5.669	11.34	1.95	29	199.7	6.360	25.04	50.07	8.70
40	859.9	1.455	5.814	11.63	2.00	30	193.2	6.583	25.88	51.76	9.00

TABLE VII.—TANGENTS AND EXTERNALS TO A 1° CURVE.

Angle	Tangent	External	Angle	Tangent	External	Angle	Tangent	External	Angle	Tangent	External
1°			11°			21°			31°		
10'	50.00	.22	10'	551.70	26.50	10'	1061.9	97.57	10'	1061.9	97.57
20	58.34	.30	20	560.11	27.31	20	1070.6	99.16	20	1070.6	99.16
30	66.67	.39	30	568.53	28.14	30	1079.2	100.75	30	1079.2	100.75
40	75.01	.49	40	576.95	28.97	40	1087.8	102.35	40	1087.8	102.35
50	83.34	.61	50	585.36	29.82	50	1096.4	103.97	50	1096.4	103.97
	91.68	.73		593.79	30.68		1105.1	105.60		1105.1	105.60
2			12			22			32		
10	100.01	.87	10	602.21	31.56	10	1113.7	107.24	10	1113.7	107.24
20	108.35	1.02	20	610.64	32.45	20	1122.4	108.90	20	1122.4	108.90
30	116.68	1.19	30	619.07	33.35	30	1131.0	110.57	30	1131.0	110.57
40	125.02	1.36	40	627.50	34.26	40	1139.7	112.25	40	1139.7	112.25
50	133.36	1.55	50	635.93	35.18	50	1148.4	113.95	50	1148.4	113.95
	141.70	1.75		644.37	36.12		1157.0	115.66		1157.0	115.66
3			13			23			33		
10	150.04	1.96	10	652.81	37.07	10	1165.7	117.38	10	1165.7	117.38
20	158.38	2.19	20	661.25	38.03	20	1174.4	119.12	20	1174.4	119.12
30	166.72	2.43	30	669.70	39.01	30	1183.1	120.87	30	1183.1	120.87
40	175.06	2.67	40	678.15	39.99	40	1191.8	122.63	40	1191.8	122.63
50	183.40	2.93	50	686.60	40.99	50	1200.5	124.41	50	1200.5	124.41
	191.74	3.21		695.06	42.00		1209.2	126.20		1209.2	126.20
4			14			24			34		
10	200.08	3.49	10	703.51	43.03	10	1217.9	128.00	10	1217.9	128.00
20	208.43	3.79	20	711.97	44.07	20	1226.6	129.82	20	1226.6	129.82
30	216.77	4.10	30	720.44	45.12	30	1235.3	131.65	30	1235.3	131.65
40	225.12	4.42	40	728.90	46.18	40	1244.0	133.50	40	1244.0	133.50
50	233.47	4.76	50	737.37	47.25	50	1252.8	135.35	50	1252.8	135.35
	241.81	5.10		745.85	48.34		1261.5	137.23		1261.5	137.23
5			15			25			35		
10	250.16	5.46	10	754.32	49.44	10	1270.2	139.11	10	1270.2	139.11
20	258.51	5.83	20	762.80	50.55	20	1279.0	141.01	20	1279.0	141.01
30	266.86	6.21	30	771.29	51.68	30	1287.7	142.93	30	1287.7	142.93
40	275.21	6.61	40	779.77	52.89	40	1296.5	144.85	40	1296.5	144.85
50	283.57	7.01	50	788.26	53.97	50	1305.3	146.79	50	1305.3	146.79
	291.92	7.43		796.75	55.13		1314.0	148.75		1314.0	148.75
6			16			26			36		
10	300.28	7.86	10	805.25	56.31	10	1322.8	150.71	10	1322.8	150.71
20	308.64	8.31	20	813.75	57.50	20	1331.6	152.69	20	1331.6	152.69
30	316.99	8.76	30	822.25	58.70	30	1340.4	154.69	30	1340.4	154.69
40	325.35	9.23	40	830.76	59.91	40	1349.2	156.70	40	1349.2	156.70
50	333.71	9.71	50	839.27	61.14	50	1358.0	158.72	50	1358.0	158.72
	342.08	10.20		847.78	62.38		1366.8	160.76		1366.8	160.76
7			17			27			37		
10	350.44	10.71	10	856.30	63.63	10	1375.6	162.81	10	1375.6	162.81
20	358.81	11.22	20	864.82	64.90	20	1384.4	164.86	20	1384.4	164.86
30	367.17	11.75	30	873.35	66.18	30	1393.2	166.95	30	1393.2	166.95
40	375.54	12.29	40	881.88	67.47	40	1402.0	169.04	40	1402.0	169.04
50	383.91	12.85	50	890.41	68.77	50	1410.9	171.15	50	1410.9	171.15
	392.28	13.41		898.95	70.09		1419.7	173.27		1419.7	173.27
8			18			28			38		
10	400.66	13.99	10	907.49	71.42	10	1428.6	175.41	10	1428.6	175.41
20	409.03	14.58	20	916.03	72.76	20	1437.4	177.55	20	1437.4	177.55
30	417.41	15.18	30	924.58	74.12	30	1446.3	179.72	30	1446.3	179.72
40	425.79	15.80	40	933.13	75.49	40	1455.1	181.89	40	1455.1	181.89
50	434.17	16.43	50	941.69	76.86	50	1464.0	184.08	50	1464.0	184.08
	442.55	17.07		950.25	78.26		1472.9	186.29		1472.9	186.29
9			19			29			39		
10	450.93	17.72	10	958.81	79.67	10	1481.8	188.51	10	1481.8	188.51
20	459.32	18.38	20	967.38	81.09	20	1490.7	190.74	20	1490.7	190.74
30	467.71	19.06	30	975.96	82.53	30	1499.6	192.99	30	1499.6	192.99
40	476.10	19.75	40	984.53	83.97	40	1508.5	195.25	40	1508.5	195.25
50	484.49	20.45	50	993.12	85.43	50	1517.4	197.53	50	1517.4	197.53
	492.88	21.16		1001.7	86.90		1526.3	199.82		1526.3	199.82
10			20			30			40		
10	501.28	21.89	10	1010.3	88.39	10	1535.3	202.12	10	1535.3	202.12
20	509.68	22.62	20	1018.9	89.89	20	1544.2	204.44	20	1544.2	204.44
30	518.08	23.38	30	1027.5	91.40	30	1553.1	206.77	30	1553.1	206.77
40	526.48	24.14	40	1036.1	92.92	40	1562.1	209.12	40	1562.1	209.12
50	534.89	24.91	50	1044.7	94.46	50	1571.0	211.48	50	1571.0	211.48
	543.29	25.70		1053.3	96.01		1580.0	213.86		1580.0	213.86

TABLE.—VII.—TANGENTS AND EXTERNALS TO A 1° CURVE.

Angle	Tangent	External	Angle	Tangent	External	Angle	Tangent	External
31°	1589.0	216.3	41°	2142.2	387.4	51°	2732.9	618.4
10'	1598.0	218.7	10'	2151.7	390.7	10'	2743.1	622.8
20	1606.9	221.1	20	2161.2	394.1	20	2753.4	627.2
30	1615.9	223.5	30	2170.8	397.4	30	2763.7	631.7
40	1624.9	226.0	40	2180.3	400.8	40	2773.9	636.2
50	1633.9	228.4	50	2189.9	404.2	50	2784.2	640.7
32	1643.0	230.9	42	2199.4	407.6	52	2794.5	645.2
10	1652.0	233.4	10	2209.0	411.1	10	2804.9	649.7
20	1661.0	235.9	20	2218.6	414.5	20	2815.2	654.2
30	1670.0	238.4	30	2228.1	418.0	30	2825.6	658.8
40	1679.1	241.0	40	2237.7	421.4	40	2835.9	663.4
50	1688.1	243.5	50	2247.3	425.0	50	2846.3	668.0
33	1697.2	246.1	43	2257.0	428.5	53	2856.7	672.7
10	1706.3	248.7	10	2266.6	432.0	10	2867.1	677.3
20	1715.3	251.3	20	2276.2	435.6	20	2877.5	682.0
30	1724.4	253.9	30	2285.9	439.2	30	2888.0	686.7
40	1733.5	256.5	40	2295.6	442.8	40	2898.4	691.4
50	1742.6	259.1	50	2305.2	446.4	50	2908.9	696.1
34	1751.7	261.8	44	2314.9	450.0	54	2919.4	700.9
10	1760.8	264.5	10	2324.6	453.6	10	2929.9	705.7
20	1770.0	267.2	20	2334.3	457.3	20	2940.4	710.5
30	1779.1	269.9	30	2344.1	461.0	30	2951.0	715.3
40	1788.2	272.6	40	2353.8	464.6	40	2961.5	720.1
50	1797.4	275.3	50	2363.5	468.4	50	2972.1	725.0
35	1806.6	278.1	45	2373.3	472.1	55	2982.7	729.9
10	1815.7	280.8	10	2383.1	475.8	10	2993.3	734.8
20	1824.9	283.6	20	2392.8	479.6	20	3003.9	739.7
30	1834.1	286.4	30	2402.6	483.8	30	3014.5	744.6
40	1843.3	289.2	40	2412.4	487.2	40	3025.2	749.6
50	1852.5	292.0	50	2422.3	491.0	50	3035.8	754.6
36	1861.7	294.9	46	2432.1	494.8	56	3046.5	759.6
10	1870.9	297.7	10	2441.9	498.7	10	3057.2	764.6
20	1880.1	300.6	20	2451.8	502.5	20	3067.9	769.7
30	1889.4	303.5	30	2461.7	506.4	30	3078.7	774.7
40	1898.6	306.4	40	2471.5	510.3	40	3089.4	779.8
50	1907.9	309.3	50	2481.4	514.3	50	3100.2	784.9
37	1917.1	312.2	47	2491.3	518.2	57	3110.9	790.1
10	1926.4	315.2	10	2501.2	522.2	10	3121.7	795.2
20	1935.7	318.1	20	2511.2	526.1	20	3132.6	800.4
30	1945.0	321.1	30	2521.1	530.1	30	3143.4	805.6
40	1954.3	324.1	40	2531.1	534.2	40	3154.2	810.9
50	1963.6	327.1	50	2541.0	538.2	50	3165.1	816.1
38	1972.9	330.2	48	2551.0	542.2	58	3176.0	821.4
10	1982.2	333.2	10	2561.0	546.3	10	3186.9	826.7
20	1991.5	336.3	20	2571.0	550.4	20	3197.8	832.0
30	2000.9	339.3	30	2581.0	554.5	30	3208.8	837.3
40	2010.2	342.4	40	2591.0	558.6	40	3219.7	842.7
50	2019.6	345.5	50	2601.1	562.8	50	3230.7	848.1
39	2029.0	348.6	49	2611.2	566.9	59	3241.7	853.5
10	2038.4	351.8	10	2621.2	571.1	10	3252.7	858.9
20	2047.8	354.9	20	2631.3	575.3	20	3263.7	864.3
30	2057.2	358.1	30	2641.4	579.5	30	3274.8	869.8
40	2066.6	361.3	40	2651.5	583.8	40	3285.8	875.3
50	2076.0	364.5	50	2661.6	588.0	50	3296.9	880.8
40	2085.4	367.7	50	2671.8	592.3	60	3308.0	886.4
10	2094.9	371.0	10	2681.9	596.6	10	3319.1	892.0
20	2104.3	374.2	20	2692.1	600.9	20	3330.3	897.5
30	2113.8	377.5	30	2702.3	605.3	30	3341.4	903.2
40	2123.3	380.8	40	2712.5	609.6	40	3352.6	908.8
50	2132.7	384.1	50	2722.7	614.0	50	3363.8	914.5

TABLE VII.—TANGENTS AND EXTERNALS TO A 1° CURVE.

Angle	Tangent	External	Angle	Tangent	External	Angle	Tangent	External
61°			71°			81°		
10'	3375.0	920.2	10'	4086.9	1368.2	10'	4893.6	1805.3
20	3386.3	925.9	20	4099.5	1315.6	20	4908.0	1814.7
30	3397.5	931.6	30	4112.1	1322.9	30	4922.5	1824.1
40	3408.8	937.3	40	4124.8	1330.3	40	4937.0	1833.6
50	3420.1	943.1	50	4137.4	1337.7	50	4951.5	1843.1
	3431.4	948.9		4150.1	1345.1		4966.1	1852.6
62	3442.7	954.8	72	4162.8	1352.6	82	4980.7	1862.2
10	3454.1	960.6	10	4175.6	1360.1	10	4995.4	1871.8
20	3465.4	966.5	20	4188.5	1367.6	20	5010.0	1881.5
30	3476.8	972.4	30	4201.2	1375.2	30	5024.8	1891.2
40	3488.3	978.3	40	4214.0	1382.8	40	5039.5	1900.9
50	3499.7	984.3	50	4226.8	1390.4	50	5054.3	1910.7
63	3511.1	990.2	73	4239.7	1398.0	83	5069.2	1920.5
10	3522.6	996.2	10	4252.6	1405.7	10	5084.0	1930.4
20	3534.1	1002.3	20	4265.6	1413.5	20	5099.0	1940.3
30	3545.6	1008.3	30	4278.5	1421.2	30	5113.9	1950.3
40	3557.2	1014.4	40	4291.5	1429.0	40	5128.9	1960.2
50	3568.7	1020.5	50	4304.6	1436.8	50	5143.9	1970.3
64	3580.3	1026.6	74	4317.6	1444.6	84	5159.0	1980.4
10	3591.9	1032.8	10	4330.7	1452.5	10	5174.1	1990.5
20	3603.5	1039.0	20	4343.8	1460.4	20	5189.3	2000.6
30	3615.1	1045.2	30	4356.9	1468.4	30	5204.4	2010.8
40	3626.8	1051.4	40	4370.1	1476.4	40	5219.7	2021.1
50	3638.5	1057.7	50	4383.3	1484.4	50	5234.9	2031.4
65	3650.2	1063.9	75	4396.5	1492.4	85	5250.3	2041.7
10	3661.9	1070.2	10	4409.8	1500.5	10	5265.6	2052.1
20	3673.7	1076.6	20	4423.1	1508.6	20	5281.0	2062.5
30	3685.4	1082.9	30	4436.4	1516.7	30	5296.4	2073.0
40	3697.2	1089.3	40	4449.7	1524.9	40	5311.9	2083.5
50	3709.0	1095.7	50	4463.1	1533.1	50	5327.4	2094.1
66	3720.9	1102.2	76	4476.5	1541.4	86	5343.0	2104.7
10	3732.7	1108.6	10	4489.9	1549.7	10	5358.6	2115.3
20	3744.6	1115.1	20	4503.4	1558.0	20	5374.2	2126.0
30	3756.5	1121.7	30	4516.9	1566.3	30	5389.9	2136.7
40	3768.5	1128.2	40	4530.4	1574.7	40	5405.6	2147.5
50	3780.4	1134.8	50	4544.0	1583.1	50	5421.4	2158.4
67	3792.4	1141.4	77	4557.6	1591.6	87	5437.2	2169.2
10	3804.4	1148.0	10	4571.2	1600.1	10	5453.1	2180.2
20	3816.4	1154.7	20	4584.8	1608.6	20	5469.0	2191.1
30	3828.4	1161.3	30	4598.5	1617.1	30	5484.9	2202.2
40	3840.5	1168.1	40	4612.2	1625.7	40	5500.9	2213.2
50	3852.6	1174.8	50	4626.0	1634.4	50	5517.0	2224.3
68	3864.7	1181.6	78	4639.8	1643.0	88	5533.1	2235.5
10	3876.8	1188.4	10	4653.6	1651.7	10	5549.2	2246.7
20	3889.0	1195.2	20	4667.4	1660.5	20	5565.4	2258.0
30	3901.2	1202.0	30	4681.3	1669.2	30	5581.6	2269.3
40	3913.4	1208.9	40	4695.2	1678.1	40	5597.8	2280.6
50	3925.6	1215.8	50	4709.2	1686.9	50	5614.2	2292.0
69	3937.9	1222.7	79	4723.2	1695.8	89	5630.5	2303.5
10	3950.2	1229.7	10	4737.2	1704.7	10	5646.9	2315.0
20	3962.5	1236.7	20	4751.2	1713.7	20	5663.4	2326.6
30	3974.8	1243.7	30	4765.3	1722.7	30	5679.9	2338.2
40	3987.2	1250.8	40	4779.4	1731.7	40	5696.4	2349.8
50	3999.5	1257.9	50	4793.6	1740.8	50	5713.0	2361.5
70	4011.9	1265.0	80	4807.7	1749.9	90	5729.7	2373.3
10	4024.4	1272.1	10	4822.0	1759.0	10	5746.3	2385.1
20	4036.8	1279.3	20	4836.2	1768.2	20	5763.1	2397.0
30	4049.3	1286.5	30	4850.5	1777.4	30	5779.9	2408.9
40	4061.8	1293.6	40	4864.8	1786.7	40	5796.7	2420.9
50	4074.4	1300.9	50	4879.2	1796.0	50	5813.6	2432.9

TABLE VII.—TANGENTS AND EXTERNALS TO A 1° CURVE.

Angle	Tangent	External	Angle	Tangent	External	Angle	Tangent	External
91°	5830.5	2444.9	101°	6950.6	3278.1	III°	8336.7	4386.1
10'	5847.5	2457.1	10'	6971.3	3294.1	10'	8362.7	4407.6
20	5864.6	2469.3	20	6992.0	3310.1	20	8388.9	4429.2
30	5881.7	2481.5	30	7012.7	3326.1	30	8415.1	4450.9
40	5898.8	2493.8	40	7033.6	3342.3	40	8441.5	4472.7
50	5916.0	2506.1	50	7054.5	3358.5	50	8468.0	4494.6
92	5933.2	2518.5	102	7075.5	3374.9	II2	8494.6	4516.6
10	5950.5	2531.0	10	7096.6	3391.2	10	8521.3	4538.8
20	5967.9	2543.5	20	7117.8	3407.7	20	8548.1	4561.1
30	5985.3	2556.0	30	7139.0	3424.3	30	8575.0	4583.4
40	6002.7	2568.6	40	7160.3	3440.9	40	8602.1	4606.0
50	6020.2	2581.3	50	7181.7	3457.6	50	8629.3	4628.6
93	6037.8	2594.0	103	7203.2	3474.4	II3	8656.6	4651.3
10	6055.4	2606.8	10	7224.7	3491.3	10	8684.0	4674.2
20	6073.1	2619.7	20	7246.3	3508.2	20	8711.5	4697.2
30	6090.8	2632.6	30	7268.0	3525.2	30	8739.2	4720.3
40	6108.6	2645.5	40	7289.8	3542.4	40	8767.0	4743.6
50	6126.4	2658.5	50	7311.7	3559.6	50	8794.9	4766.9
94	6144.3	2671.6	104	7333.6	3576.8	II4	8820.9	4790.4
10	6162.6	2684.7	10	7355.6	3594.2	10	8851.0	4814.1
20	6180.2	2697.9	20	7377.8	3611.7	20	8879.3	4837.8
30	6198.3	2711.2	30	7399.9	3629.2	30	8907.7	4861.7
40	6216.4	2724.5	40	7422.2	3646.8	40	8936.3	4885.7
50	6234.6	2737.9	50	7444.6	3664.5	50	8965.0	4909.9
95	6252.8	2751.3	105	7467.0	3682.3	II5	8993.8	4934.1
10	6271.1	2764.8	10	7489.6	3700.2	10	9022.7	4958.6
20	6289.4	2778.3	20	7512.2	3718.2	20	9051.7	4983.1
30	6307.9	2792.0	30	7534.9	3736.2	30	9080.9	5007.8
40	6326.3	2805.6	40	7557.7	3754.4	40	9110.3	5032.6
50	6344.8	2819.4	50	7580.5	3772.6	50	9139.8	5057.6
96	6363.4	2833.2	106	7603.5	3791.0	II6	9169.4	5082.7
10	6382.1	2847.0	10	7626.6	3809.4	10	9199.1	5107.9
20	6400.8	2861.0	20	7649.7	3827.9	20	9229.0	5133.3
30	6419.5	2875.0	30	7672.9	3846.5	30	9259.0	5158.8
40	6438.4	2889.0	40	7696.3	3865.2	40	9289.2	5184.5
50	6457.3	2903.1	50	7719.7	3884.0	50	9319.5	5210.3
97	6476.2	2917.3	107	7743.2	3902.9	II7	9349.9	5236.2
10	6495.2	2931.6	10	7766.8	3921.9	10	9380.5	5262.3
20	6514.3	2945.9	20	7790.5	3940.9	20	9411.3	5288.6
30	6533.4	2960.3	30	7814.3	3960.1	30	9442.2	5315.0
40	6552.6	2974.7	40	7838.1	3979.4	40	9473.2	5341.5
50	6571.9	2989.2	50	7862.1	3998.7	50	9504.4	5368.2
98	6591.2	3003.8	108	7886.2	4018.2	II8	9535.7	5395.1
10	6610.6	3018.4	10	7910.4	4037.8	10	9567.2	5422.1
20	6630.1	3033.1	20	7934.6	4057.4	20	9598.9	5449.2
30	6649.6	3047.9	30	7959.0	4077.2	30	9630.7	5476.5
40	6669.2	3062.8	40	7983.5	4097.1	40	9662.6	5504.0
50	6688.8	3077.7	50	8008.0	4117.0	50	9694.7	5531.7
99	6708.6	3092.7	109	8032.7	4137.1	II9	9727.0	5559.4
10	6728.4	3107.7	10	8057.4	4157.3	10	9759.4	5587.4
20	6748.2	3122.9	20	8082.3	4177.5	20	9792.0	5615.5
30	6768.1	3138.1	30	8107.3	4197.9	30	9824.8	5643.8
40	6788.1	3153.3	40	8132.3	4218.4	40	9857.7	5672.3
50	6808.2	3168.7	50	8157.5	4239.0	50	9890.8	5700.9
100	6828.3	3184.1	110	8182.8	4259.7	120	9924.0	5729.7
10	6848.5	3199.6	10	8208.2	4280.5	10	9957.5	5758.6
20	6868.8	3215.1	20	8233.7	4301.4	20	9991.0	5787.7
30	6889.2	3230.8	30	8259.3	4322.4	30	10025.0	5817.0
40	6909.6	3246.5	40	8285.0	4343.6	40	10059.0	5846.5
50	6930.1	3262.3	50	8310.8	4364.8	50	10093.0	5876.1

TABLE VIII.—MIDDLE ORDINATES FOR RAILS.

Deg. of Curve	LENGTH OF RAILS.							Deg. of Curve	LENGTH OF RAILS.						
	32	30	28	26	24	22	20		32	30	28	26	24	22	20
1°	.022	.020	.016	.013	.011	.009	.008	16°	.356	.313	.273	.236	.200	.170	.139
2	.045	.038	.034	.029	.025	.021	.017	17	.378	.333	.290	.252	.213	.180	.148
3	.037	.058	.051	.044	.037	.031	.026	18	.400	.351	.306	.265	.225	.190	.156
4	.089	.079	.069	.060	.050	.042	.035	19	.423	.371	.324	.280	.238	.201	.165
5	.112	.099	.086	.074	.063	.053	.044	20	.445	.392	.341	.296	.250	.212	.174
6	.134	.117	.102	.088	.076	.064	.052	21	.466	.410	.357	.309	.262	.222	.182
7	.156	.137	.120	.104	.088	.074	.061	22	.487	.430	.375	.325	.275	.233	.191
8	.179	.158	.137	.119	.100	.085	.070	23	.509	.450	.390	.338	.287	.243	.199
9	.201	.175	.153	.133	.112	.095	.078	24	.531	.469	.408	.354	.299	.253	.208
10	.223	.196	.171	.148	.125	.106	.087	25	.552	.486	.424	.367	.311	.263	.216
11	.245	.216	.188	.163	.139	.117	.096	26	.573	.506	.441	.382	.323	.274	.225
12	.268	.236	.206	.179	.151	.128	.105	27	.594	.524	.457	.396	.335	.284	.233
13	.290	.254	.222	.192	.163	.138	.113	28	.618	.545	.475	.411	.348	.294	.242
14	.312	.275	.239	.207	.175	.148	.122	29	.638	.564	.491	.424	.361	.303	.250
15	.334	.295	.257	.223	.188	.159	.131	30	.660	.583	.508	.438	.374	.313	.259

CURVE FORMULÆ.

$T = R \tan. \frac{1}{2} I$	$R = T \cot. \frac{1}{2} I$	Chord def. = $\frac{\text{chord}^2}{R}$
$T = 50 \tan. \frac{1}{2} I$	$R = \frac{50}{\sin. D}$	No. chords = $\frac{\frac{1}{2} I}{D}$
$\sin. D = \frac{50}{R}$	$E = R \text{ ex. sec. } \frac{1}{2} I$	Tan. def. = $\frac{1}{2} \text{ chord def.}$
$\sin. D = \frac{50 \tan. \frac{1}{2} I}{T}$	$E = T \tan. \frac{1}{4} I$	

The square of any distance, divided by twice the radius, will equal the distance from tangent to curve, very nearly.

Table 7 contains Tangents and External to a 1° curve. Tan. and Ext. to any other radius may be found, nearly enough, by dividing the Tan. or Ext. opposite the given central angle by the given degree of curve.

To find Deg. of Curve, having the Central Angle and Tangent: Divide Tan. opposite the given Central Angle by the given Tangent.

To find Deg. of Curve, having the Central Angle and External: Divide Ext. opposite the given Central Angle by the given External.

To find Nat. Tan. and Nat. Ex. Sec. for any angle by Table 7: Tan. or Ext. of twice the given angle divided by the radius of a 1° curve will be the Nat. Tan. or Nat. Ex. Sec.

To find angle for a given distance and deflection.

Rule 1. Multiply the given distance by .01745 (def. for 1° for 1 ft.), and divide given deflection by the product.

Rule 2. Multiply given deflection by 57.3, and divide the product by the given distance.

To find deflection for a given angle and distance: Multiply the angle by .01745, and the product by the distance.

RIGHT ANGLE TRIANGLES.—Square the altitude, divide by twice the base. Add quotient to base for hypotenuse.

Given Base 100, Alt. 10. $10^2 \div 200 = .5$. $100 + .5 = 100.5$ hyp.

Given Hyp. 100, Alt. 25. $25^2 \div 200 = 3.125$. $100 - 3.125 = 96.875 = \text{Base}$.

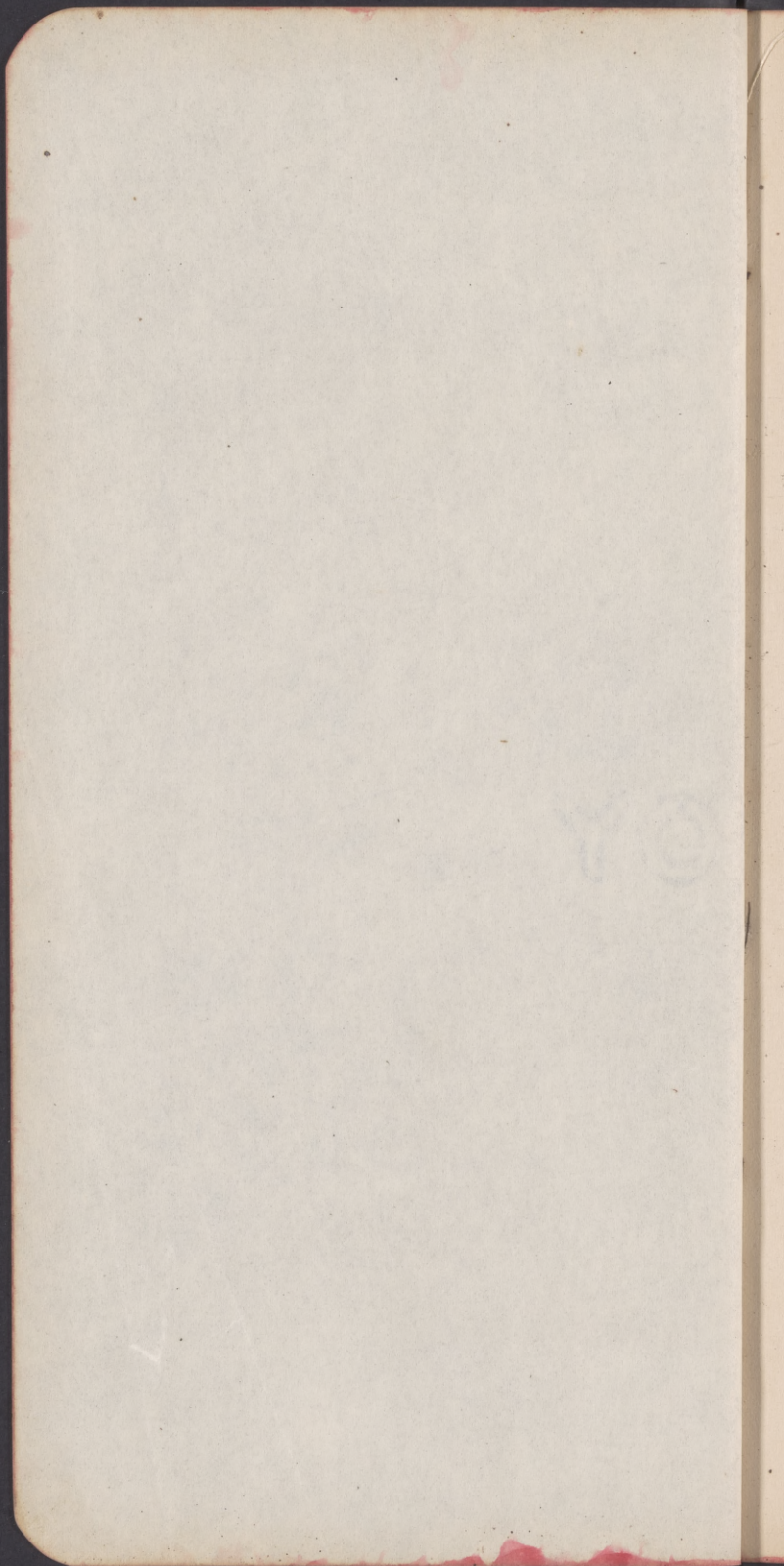
Error in first example, .002; in last, .045.

To find Tons of Rail in one mile of track: multiply weight per yard by 11, and divide by 7.

64.87
- 8.05
72.95
- 89
71.06

0
39
48
56
35
74
82
91
99
98
16
25
33
42
60
69

f.
e
t.
r
e
e
e
n.
e
d
y
e
e
e.
y





132+
331.4

Box Culverts.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.
ROADWAY 14 FEET WIDE. SIDE SLOPES $1\frac{1}{2}$ TO 1.
FOR SINGLE TRACK EMBANKMENT.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	7.00	7.15	7.30	7.45	7.60	7.75	7.90	8.05	8.20	8.35	0
1	8.50	8.65	8.80	8.95	9.10	9.25	9.40	9.55	9.70	9.85	1
2	10.00	10.15	10.30	10.45	10.60	10.75	10.90	11.05	11.20	11.35	2
3	11.50	11.65	11.80	11.95	12.10	12.25	12.40	12.55	12.70	12.85	3
4	13.00	13.15	13.30	13.45	13.60	13.75	13.90	14.05	14.20	14.35	4
5	14.50	14.65	14.80	14.95	15.10	15.25	15.40	15.55	15.70	15.85	5
6	16.00	16.15	16.30	16.45	16.60	16.75	16.90	17.05	17.20	17.35	6
7	17.50	17.65	17.80	17.95	18.10	18.25	18.40	18.55	18.70	18.85	7
8	19.00	19.15	19.30	19.45	19.60	19.75	19.90	20.05	20.20	20.35	8
9	20.50	20.65	20.80	20.95	21.10	21.25	21.40	21.55	21.70	21.85	9
10	22.00	22.15	22.30	22.45	22.60	22.75	22.90	23.05	23.20	23.35	10
11	23.50	23.65	23.80	23.95	24.10	24.25	24.40	24.55	24.70	24.85	11
12	25.00	25.15	25.30	25.45	25.60	25.75	25.90	26.05	26.20	26.35	12
13	26.50	26.65	26.80	26.95	27.10	27.25	27.40	27.55	27.70	27.85	13
14	28.00	28.15	28.30	28.45	28.60	28.75	28.90	29.05	29.20	29.35	14
15	29.50	29.65	29.80	29.95	30.10	30.25	30.40	30.55	30.70	30.85	15
16	31.00	31.15	31.30	31.45	31.60	31.75	31.90	32.05	32.20	32.35	16
17	32.50	32.65	32.80	32.95	33.10	33.25	33.40	33.55	33.70	33.85	17
18	34.00	34.15	34.30	34.45	34.60	34.75	34.90	35.05	35.20	35.35	18
19	35.50	35.65	35.80	35.95	36.10	36.25	36.40	36.55	36.70	36.85	19
20	37.00	37.15	37.30	37.45	37.60	37.75	37.90	38.05	38.20	38.35	20
21	38.50	38.65	38.80	38.95	39.10	39.25	39.40	39.55	39.70	39.85	21
22	40.00	40.15	40.30	40.45	40.60	40.75	40.90	41.05	41.20	41.35	22
23	41.50	41.65	41.80	41.95	42.10	42.25	42.40	42.55	42.70	42.85	23
24	43.00	43.15	43.30	43.45	43.60	43.75	43.90	44.05	44.20	44.35	24
25	44.50	44.65	44.80	44.95	45.10	45.25	45.40	45.55	45.70	45.85	25
26	46.00	46.15	46.30	46.45	46.60	46.75	46.90	47.05	47.20	47.35	26
27	47.50	47.65	47.80	47.95	48.10	48.25	48.40	48.55	48.70	48.85	27
28	49.00	49.15	49.30	49.45	49.60	49.75	49.90	50.05	50.20	50.35	28
29	50.50	50.65	50.80	50.95	51.10	51.25	51.40	51.55	51.70	51.85	29
30	52.00	52.15	52.30	52.45	52.60	52.75	52.90	53.05	53.20	53.35	30
31	53.50	53.65	53.80	53.95	54.10	54.25	54.40	54.55	54.70	54.85	31
32	55.00	55.15	55.30	55.45	55.60	55.75	55.90	56.05	56.20	56.35	32
33	56.50	56.65	56.80	56.95	57.10	57.25	57.40	57.55	57.70	57.85	33
34	58.00	58.15	58.30	58.45	58.60	58.75	58.90	59.05	59.20	59.35	34
35	59.50	59.65	59.80	59.95	60.10	60.25	60.40	60.55	60.70	60.85	35
36	61.00	61.15	61.30	61.45	61.60	61.75	61.90	62.05	62.20	62.35	36
37	62.50	62.65	62.80	62.95	63.10	63.25	63.40	63.55	63.70	63.85	37
38	64.00	64.15	64.30	64.45	64.60	64.75	64.90	65.05	65.20	65.35	38
39	65.50	65.65	65.80	65.95	66.10	66.25	66.40	66.55	66.70	66.85	39
40	67.00	67.15	67.30	67.45	67.60	67.75	67.90	68.05	68.20	68.35	40

Calculated by F. E. Paradis, C. F

66.03
50.9
151

66.03
50.9
151



DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.

ROADWAY 16 FEET WIDE. SIDE SLOPES $1\frac{1}{2}$ TO 1.

FOR SINGLE TRACK EMBANKMENT.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	8.0	8.2	8.3	8.5	8.6	8.8	8.9	9.1	9.2	9.4	0
1	9.5	9.7	9.8	10.0	10.1	10.3	10.4	10.6	10.7	10.9	1
2	11.0	11.2	11.3	11.5	11.6	11.8	11.9	12.1	12.2	12.4	2
3	12.5	12.7	12.8	13.0	13.1	13.3	13.4	13.6	13.7	13.9	3
4	14.0	14.2	14.3	14.5	14.6	14.8	14.9	15.1	15.2	15.4	4
5	15.5	15.7	15.8	16.0	16.1	16.3	16.4	16.6	16.7	16.9	5
6	17.0	17.2	17.3	17.5	17.6	17.8	17.9	18.1	18.2	18.4	6
7	18.5	18.7	18.8	19.0	19.1	19.3	19.4	19.6	19.7	19.9	7
8	20.0	20.2	20.3	20.5	20.6	20.8	20.9	21.1	21.2	21.4	8
9	21.5	21.7	21.8	22.0	22.1	22.3	22.4	22.6	22.7	22.9	9
10	23.0	23.2	23.3	23.5	23.6	23.8	23.9	24.1	24.2	24.4	10
11	24.5	24.7	24.8	25.0	25.1	25.3	25.4	25.6	25.7	25.9	11
12	26.0	26.2	26.3	26.5	26.6	26.8	26.9	27.1	27.2	27.4	12
13	27.5	27.7	27.8	28.0	28.1	28.3	28.4	28.6	28.7	28.9	13
14	29.0	29.2	29.3	29.5	29.6	29.8	29.9	30.1	30.2	30.4	14
15	30.5	30.7	30.8	31.0	31.1	31.3	31.4	31.6	31.7	31.9	15
16	32.0	32.2	32.3	32.5	32.6	32.8	32.9	33.1	33.2	33.4	16
17	33.5	33.7	33.8	34.0	34.1	34.3	34.4	34.6	34.7	34.9	17
18	35.0	35.2	35.3	35.5	35.6	35.8	35.9	36.1	36.2	36.4	18
19	36.5	36.7	36.8	37.0	37.1	37.3	37.4	37.6	37.7	37.9	19
20	38.0	38.2	38.3	38.5	38.6	38.8	38.9	39.1	39.2	39.4	20
21	39.5	39.7	39.8	40.0	40.1	40.3	40.4	40.6	40.7	40.9	21
22	41.0	41.2	41.3	41.5	41.6	41.8	41.9	42.1	42.2	42.4	22
23	42.5	42.7	42.8	43.0	43.1	43.3	43.4	43.6	43.7	43.9	23
24	44.0	44.2	44.3	44.5	44.6	44.8	44.9	45.1	45.2	45.4	24
25	45.5	45.7	45.8	46.0	46.1	46.3	46.4	46.6	46.7	46.9	25
26	47.0	47.2	47.3	47.5	47.6	47.8	47.9	48.1	48.2	48.4	26
27	48.5	48.7	48.8	49.0	49.1	49.3	49.4	49.6	49.7	49.9	27
28	50.0	50.2	50.3	50.5	50.6	50.8	50.9	51.1	51.2	51.4	28
29	51.5	51.7	51.8	52.0	52.1	52.3	52.4	52.6	52.7	52.9	29
30	53.0	53.2	53.3	53.5	53.6	53.8	53.9	54.1	54.2	54.4	30
31	54.5	54.7	54.8	55.0	55.1	55.3	55.4	55.6	55.7	55.9	31
32	56.0	56.2	56.3	56.5	56.6	56.8	56.9	57.1	57.2	57.4	32
33	57.5	57.7	57.8	58.0	58.1	58.3	58.4	58.6	58.7	58.9	33
34	59.0	59.2	59.3	59.5	59.6	59.8	59.9	60.1	60.2	60.4	34
35	60.5	60.7	60.8	61.0	61.1	61.3	61.4	61.6	61.7	61.9	35
36	62.0	62.2	62.3	62.5	62.6	62.8	62.9	63.1	63.2	63.4	36
37	63.5	63.7	63.8	64.0	64.1	64.3	64.4	64.6	64.7	64.9	37
38	65.0	65.2	65.3	65.5	65.6	65.8	65.9	66.1	66.2	66.4	38
39	66.5	66.7	66.8	67.0	67.1	67.3	67.4	67.6	67.7	67.9	39
40	68.0	68.2	68.3	68.5	68.6	68.8	68.9	69.1	69.2	69.4	40

Calculated by F. E. Paradis, C. E.

